

STN Structure Search (Registry/Caplus)

10/783,304

Formula I

11/20/2006

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSPTAJMN1626

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * Welcome to STN International * * * * *

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America
NEWS 2 "Ask CAS" for self-help around the clock
NEWS 3 AUG 09 INSPEC enhanced with 1898-1968 archive
NEWS 4 AUG 28 ADISCTI Reloaded and Enhanced
NEWS 5 AUG 30 CA(SM)/CAplus(SM) Austrian patent law changes
NEWS 6 SEP 11 CA/CAplus enhanced with more pre-1907 records
NEWS 7 SEP 21 CA/CAplus fields enhanced with simultaneous left and right
truncation
NEWS 8 SEP 25 CA(SM)/CAplus(SM) display of CA Lexicon enhanced
NEWS 9 SEP 25 CAS REGISTRY(SM) no longer includes Concord 3D coordinates
NEWS 10 SEP 25 CAS REGISTRY(SM) updated with amino acid codes for pyrrolysine
NEWS 11 SEP 28 CEABA-VTB classification code fields reloaded with new
classification scheme
NEWS 12 OCT 19 LOGOFF HOLD duration extended to 120 minutes
NEWS 13 OCT 19 E-mail format enhanced
NEWS 14 OCT 23 Option to turn off MARPAT highlighting enhancements available
NEWS 15 OCT 23 CAS Registry Number crossover limit increased to 300,000 in
multiple databases
NEWS 16 OCT 23 The Derwent World Patents Index suite of databases on STN
has been enhanced and reloaded
NEWS 17 OCT 30 CHEMLIST enhanced with new search and display field
NEWS 18 NOV 03 JAPIO enhanced with IPC 8 features and functionality
NEWS 19 NOV 10 CA/CAplus F-Term thesaurus enhanced
NEWS 20 NOV 10 STN Express with Discover! free maintenance release Version
8.01c now available
NEWS 21 NOV 13 CA/CAplus pre-1967 chemical substance index entries enhanced
with preparation role

NEWS EXPRESS NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT
MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.

NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS LOGIN Welcome Banner and News Items
NEWS IPC8 For general information regarding STN implementation of IPC 8
NEWS X25 X.25 communication option no longer available

Enter NEWS followed by the item number or name to see news on that
specific topic.

All use of STN is subject to the provisions of the STN Customer
agreement. Please note that this agreement limits use to scientific
research. Use for software development or design or implementation
of commercial gateways or other similar uses is prohibited and may

result in loss of user privileges and other penalties.

* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 12:49:21 ON 20 NOV 2006

=> fil reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'REGISTRY' ENTERED AT 12:49:34 ON 20 NOV 2006

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 19 NOV 2006 HIGHEST RN 913611-00-4

DICTIONARY FILE UPDATES: 19 NOV 2006 HIGHEST RN 913611-00-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=>

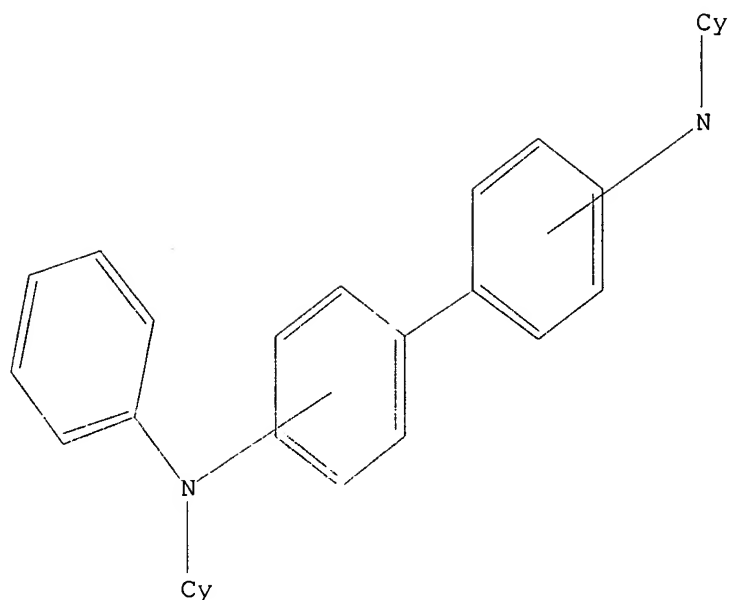
Uploading c:\program files\stnexp\queries\10783304\5.1

L1 STRUCTURE UPLOADED

=> d

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1 full

FULL SEARCH INITIATED 12:49:53 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 246238 TO ITERATE

100.0% PROCESSED 246238 ITERATIONS

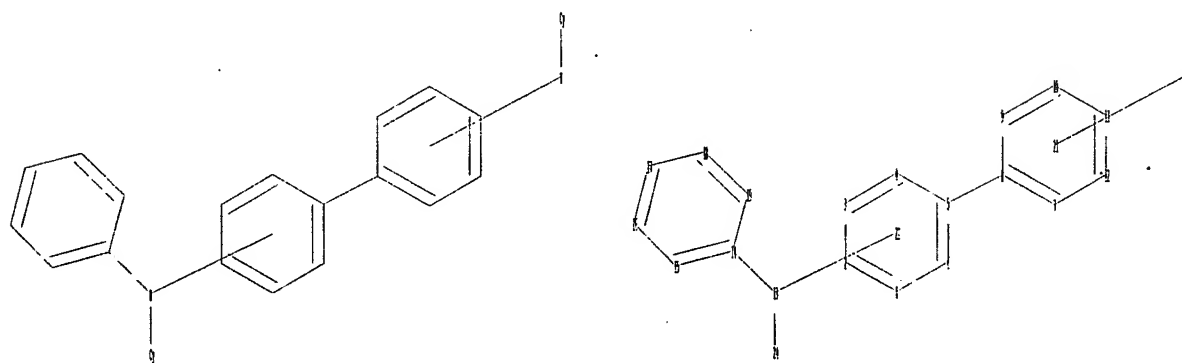
3553 ANSWERS

SEARCH TIME: 00.00.05

L2 3553 SEA SSS FUL L1

=>

Uploading C:\Program Files\Stnexp\Queries\10783304\5_2.str



chain nodes :

13 20 23 24

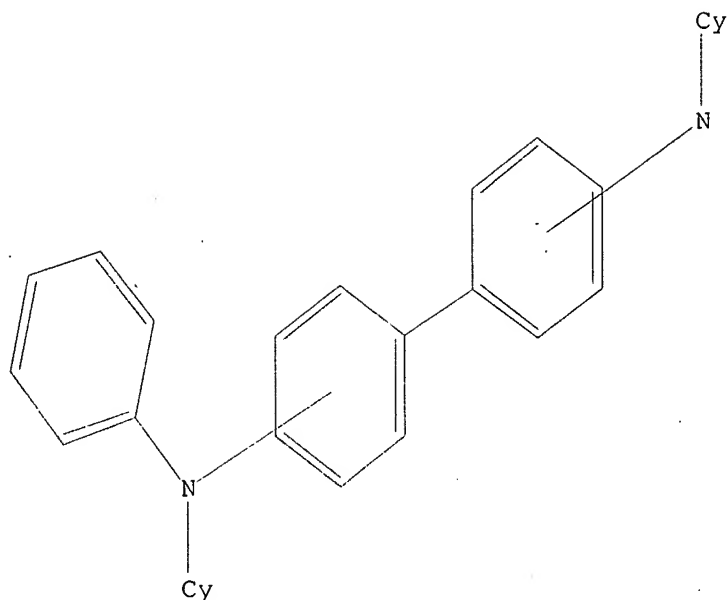
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 14 15 16 17 18 19
chain bonds :
5-8 13-14 13-24 20-23
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 14-15 14-19
15-16 16-17 17-18 18-19
exact/norm bonds :
13-14 13-24 20-23
exact bonds :
5-8
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 14-15 14-19
15-16 16-17 17-18 18-19
isolated ring systems :
containing 1 : 7 : 14 :

G1:C,O,S,Si

Connectivity :
23:2 M minimum RC ring/chain 24:2 M minimum RC ring/chain
Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:CLASS 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom
20:CLASS 21:CLASS 22:CLASS 23:Any 24:Atom
Generic attributes :
23:
Saturation : Unsaturated
24:
Saturation : Unsaturated

L3 STRUCTURE UPLOADED

=> d
L3 HAS NO ANSWERS
L3 STR



G1 C,O,S,Si

Structure attributes must be viewed using STN Express query preparation.

=> s 13 full sub=l2

FULL SUBSET SEARCH INITIATED 12:53:38 FILE 'REGISTRY'

FULL SUBSET SCREEN SEARCH COMPLETED - 3532 TO ITERATE

100.0% PROCESSED 3532 ITERATIONS

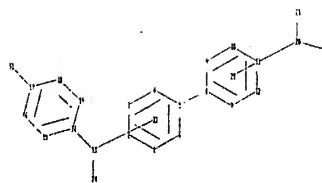
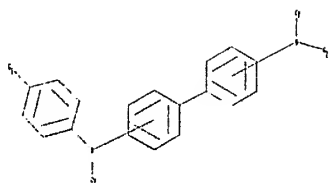
3316 ANSWERS

SEARCH TIME: 00.00.01

L4 3316 SEA SUB=L2 SSS FUL L3

=>

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chain nodes :
 13 20 23 24 30 31
 ring nodes :
 1 2 3 4 5 6 7 8 9 10 11 12 14 15 16 17 18 19
 chain bonds :
 5-8 13-14 13-24 17-31 20-23 20-30
 ring bonds :
 1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 14-15 14-19
 15-16 16-17 17-18 18-19
 exact/norm bonds :
 13-14 13-24 17-31 20-23 20-30
 exact bonds :
 5-8
 normalized bonds :
 1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 14-15 14-19
 15-16 16-17 17-18 18-19
 isolated ring systems :
 containing 1 : 7 : 14 :

G1:C,O,S,Si

G2:H,Cy

Connectivity :

23:2 M minimum RC ring/chain 24:2 M minimum RC ring/chain

Match level :

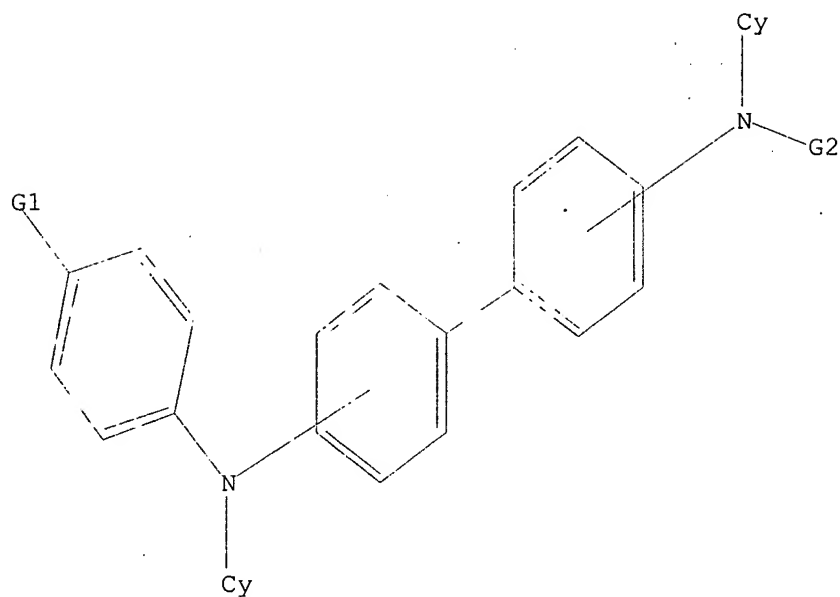
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
 11:Atom 12:Atom 13:CLASS 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom
 20:CLASS 21:CLASS 22:CLASS 23:Any 24:Atom 30:CLASS 31:CLASS

Generic attributes :

23:
Saturation : Unsaturated
24:
Saturation : Unsaturated

L5 STRUCTURE UPLOADED

=> d
L5 HAS NO ANSWERS
L5 STR



G1 C,O,S,Si
G2 H,Cy

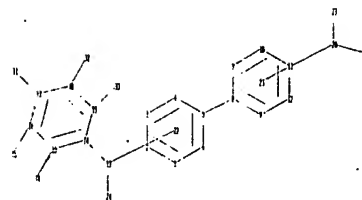
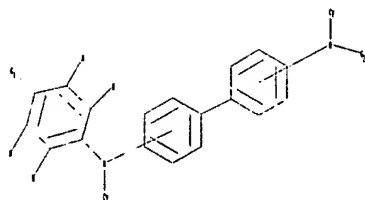
Structure attributes must be viewed using STN Express query preparation.

=> s l5 full sub=l4
FULL SUBSET SEARCH INITIATED 12:55:34 FILE 'REGISTRY'
FULL SUBSET SCREEN SEARCH COMPLETED - 3059 TO ITERATE

100.0% PROCESSED 3059 ITERATIONS 1802 ANSWERS
SEARCH TIME: 00.00.01

L6 1802 SEA SUB=L4 SSS FUL L5

=>
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```

chain nodes :
13 20 23 24 30 31 32 33 34 35
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 14 15 16 17 18 19
chain bonds :
5-8 13-14 13-24 15-34 16-35 17-31 18-32 19-33 20-23 20-30
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 14-15 14-19
15-16 16-17 17-18 18-19
exact/norm bonds :
13-14 13-24 17-31 20-23 20-30
exact bonds :
5-8 15-34 16-35 18-32 19-33
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 14-15 14-19
15-16 16-17 17-18 18-19
isolated ring systems :
containing 1 : 7 : 14 :

```

G1:C,O,S,Si

G2:H,Cy

Connectivity :

23:2 M minimum RC ring/chain 24:2 M minimum RC ring/chain

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
 11:Atom 12:Atom 13:CLASS 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom
 20:CLASS 21:CLASS 22:CLASS 23:Any 24:Atom 30:CLASS 31:CLASS 32:CLASS
 33:CLASS 34:CLASS 35:CLASS

Generic attributes :

23:

Saturation : Unsaturated

24:

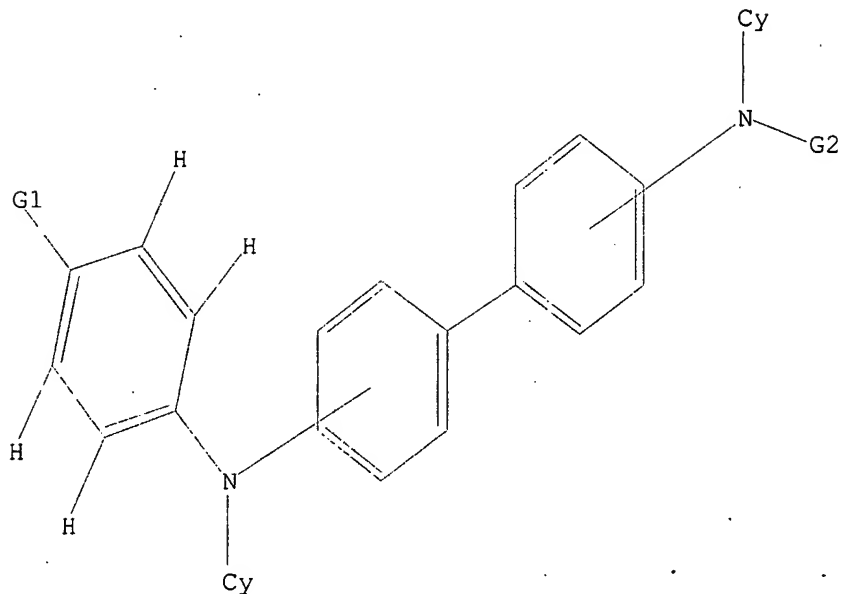
Saturation : Unsaturated

L7 STRUCTURE UPLOADED

=> d

L7 HAS NO ANSWERS

L7 STR



G1 C,O,S,Si

G2 H,Cy

Structure attributes must be viewed using STN Express query preparation.

=> s 17 full sub=16

FULL SUBSET SEARCH INITIATED 12:57:32 FILE 'REGISTRY'

FULL SUBSET SCREEN SEARCH COMPLETED - 1802 TO ITERATE

100.0% PROCESSED 1802 ITERATIONS

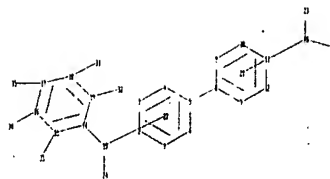
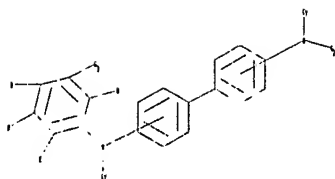
1646 ANSWERS

SEARCH TIME: 00.00.01

L8 1646 SEA SUB=L6 SSS FUL L7

=>

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chain nodes :
 13 20 23 24 30 31 32 33 34 35
 ring nodes :
 1 2 3 4 5 6 7 8 9 10 11 12 14 15 16 17 18 19
 chain bonds :
 5-8 13-14 13-24 15-33 16-34 17-35 18-31 19-32 20-23 20-30
 ring bonds :
 1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 14-15 14-19
 15-16 16-17 17-18 18-19
 exact/norm bonds :
 13-14 13-24 18-31 20-23 20-30
 exact bonds :
 5-8 15-33 16-34 17-35 19-32
 normalized bonds :
 1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 14-15 14-19
 15-16 16-17 17-18 18-19
 isolated ring systems :
 containing 1 : 7 : 14 :

G1:C,O,S,Si

G2:H,Cy

Connectivity :

23:2 M minimum RC ring/chain 24:2 M minimum RC ring/chain

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
 11:Atom 12:Atom 13:CLASS 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom
 20:CLASS 21:CLASS 22:CLASS 23:Any 24:Atom 30:CLASS 31:CLASS 32:CLASS
 33:CLASS 34:CLASS 35:CLASS

Generic attributes :

23:

Saturation : Unsaturated

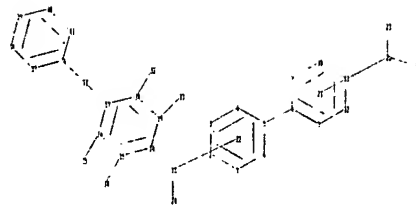
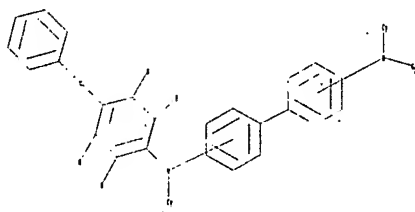
24:

Saturation : Unsaturated

L9 STRUCTURE UPLOADED

=>

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chain nodes :

13 20 23 24 30 31 32 33 34 35

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 14 15 16 17 18 19 36 37 38 39 40 41

chain bonds :

5-8 13-14 13-24 15-34 16-35 17-31 18-32 19-33 20-23 20-30 31-36

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 14-15 14-19
15-16 16-17 17-18 18-19 36-37 36-41 37-38 38-39 39-40 40-41

exact/norm bonds :

13-14 13-24 17-31 20-23 20-30 31-36

exact bonds :

5-8 15-34 16-35 18-32 19-33

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 14-15 14-19
15-16 16-17 17-18 18-19 36-37 36-41 37-38 38-39 39-40 40-41

isolated ring systems :

containing 1 : 7 : 14 : 36 :

G1:O,S

Connectivity :

Match level :

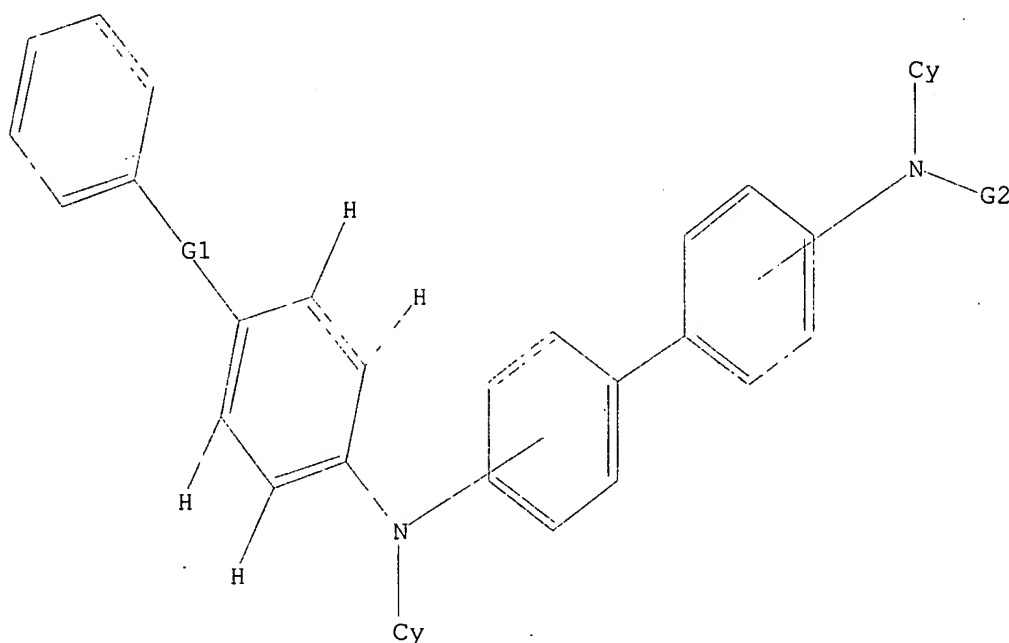
23:

24:

Saturation : Unsaturated

$$\Rightarrow d$$

L10 STR



G2 H, Cy

=> s 110 full sub=18

FULL SUBSET SCREEN SEARCH COMPLETED - 32 TO ITERATE

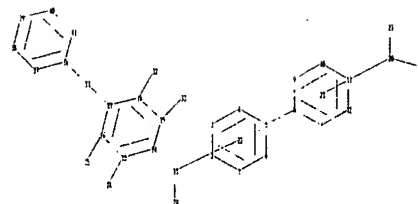
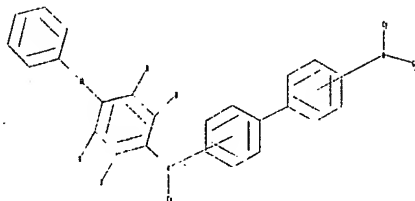
100.0% PROCESSED 32 ITERATIONS
SEARCH TIME: 00.00.01

25 ANSWERS

L11 25 SEA SUB=L8 SSS FUL L10

=>

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chain nodes :

13 20 23 24 30 31 32 33 34 35

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 14 15 16 17 18 19 36 37 38 39 40
41

chain bonds :

5-8 13-14 13-24 15-34 16-35 17-31 18-32 19-33 20-23 20-30 31-36

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 14-15 14-19
15-16 16-17 17-18 18-19 36-37 36-41 37-38 38-39 39-40 40-41

exact/norm bonds :

13-14 13-24 17-31 20-23 20-30 31-36

exact bonds :

5-8 15-34 16-35 18-32 19-33

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 14-15 14-19
15-16 16-17 17-18 18-19 36-37 36-41 37-38 38-39 39-40 40-41

isolated ring systems :

containing 1 : 7 : 14 : 36 :

G1:O,S

G2:H,Cy

Connectivity :

23:2 M minimum RC ring/chain 24:2 M minimum RC ring/chain

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:CLASS 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom
20:CLASS 21:CLASS 22:CLASS 23:Anv 24:Atom 30:CLASS 31:CLASS 32:CLASS
33:CLASS 34:CLASS 35:ClSearched by Jason M. Nolan, Ph.D. :Atom 40:Atom 41

Generic attributes :

23:

Saturation : Unsaturated

24:

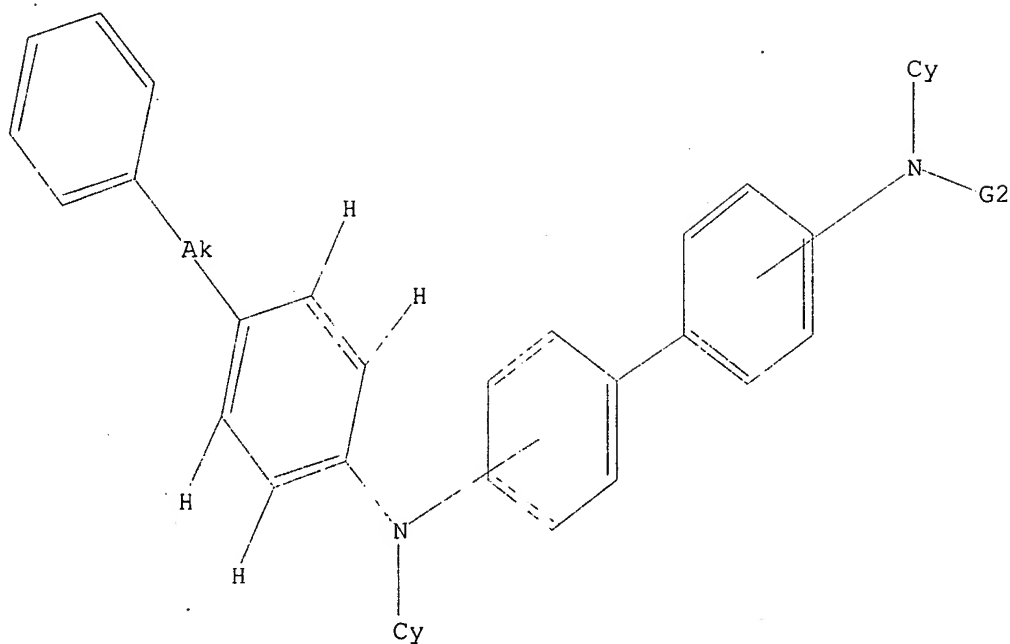
Saturation : Unsaturated

L12 STRUCTURE UPLOADED

=> d

L12 HAS NO ANSWERS

L12 STR



G1 O,S

G2 H,Cy

Structure attributes must be viewed using STN Express query preparation.

=> s l12 full sub=l8

FULL SUBSET SEARCH INITIATED 13:01:24 FILE 'REGISTRY'

FULL SUBSET SCREEN SEARCH COMPLETED - 1646 TO ITERATE

100.0% PROCESSED 1646 ITERATIONS

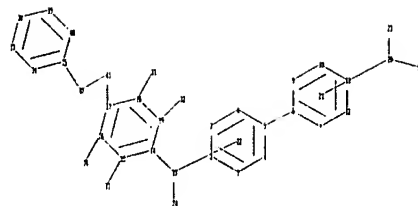
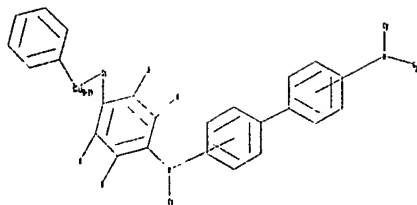
208 ANSWERS

SEARCH TIME: 00.00.01

L13 208 SEA SUB=L8 SSS FUL L12

=>

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```

chain nodes :
13 20 23 24 30 31 32 33 34 41 42
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 14 15 16 17 18 19 35 36 37 38 39
40
chain bonds :
5-8 13-14 13-24 15-33 16-34 17-41 18-31 19-32 20-23 20-30 35-42 41-42
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 14-15 14-19
15-16 16-17 17-18 18-19 35-40 35-36 36-37 37-38 38-39 39-40
exact/norm bonds :
13-14 13-24 20-23 20-30
exact bonds :
5-8 15-33 16-34 17-41 18-31 19-32 35-42 41-42
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 14-15 14-19
15-16 16-17 17-18 18-19 35-40 35-36 36-37 37-38 38-39 39-40
isolated ring systems :
containing 1 : 7 : 14 : 35 :

```

G1:O,S

G2:H,Cy

Connectivity :

23:2 M minimum RC ring/chain 24:2 M minimum RC ring/chain

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
 11:Atom 12:Atom 13:CLASS 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom
 20:CLASS 21:CLASS 22:CLASS 23:Any 24:Atom 30:CLASS 31:CLASS 32:CLASS
 33:CLASS 34:CLASS 35:Atom 36:Atom 37:Atom 38:Atom 39:Atom 40:Atom 41:CLASS
 42:CLASS

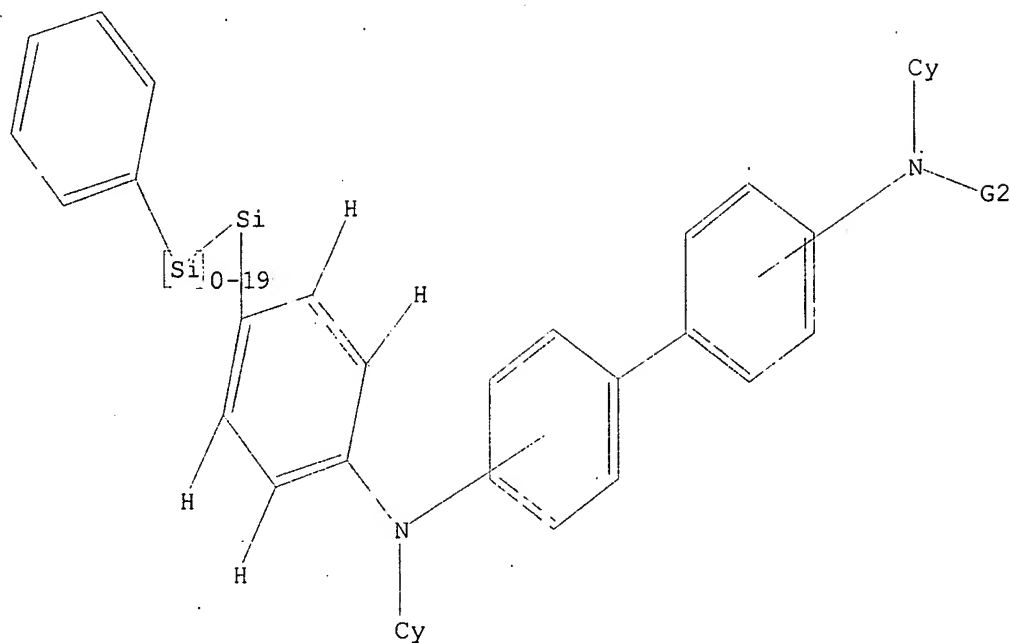
Generic attributes :

23:

Saturation : Unsaturated

L14 STRUCTURE UPLOADED

```
=>
=> d
L14 HAS NO ANSWERS
L14 STR
```



G1 O, S
G2 H, Cy

Structure attributes must be viewed using STN Express query preparation.

```
=> s 114 full sub=18
FULL SUBSET SEARCH INITIATED 13:02:41 FILE 'REGISTRY'
FULL SUBSET SCREEN SEARCH COMPLETED -      11 TO ITERATE
```

```
100.0% PROCESSED      11 ITERATIONS      1 ANSWERS
SEARCH TIME: 00.00.01
```

L15 1 SEA SUB=L8 SSS FUL L14

=> d his

(FILE 'HOME' ENTERED AT 12:49:21 ON 20 NOV 2006)

FILE 'REGISTRY' ENTERED AT 12:49:34 ON 20 NOV 2006

L1 STRUCTURE UPLOADED
 L2 3553 S L1 FULL
 L3 STRUCTURE UPLOADED
 L4 3316 S L3 FULL SUB=L2
 L5 STRUCTURE UPLOADED
 L6 1802 S L5 FULL SUB=L4
 L7 STRUCTURE UPLOADED
 L8 1646 S L7 FULL SUB=L6
 L9 STRUCTURE UPLOADED
 L10 STRUCTURE UPLOADED
 L11 25 S L10 FULL SUB=L8
 L12 STRUCTURE UPLOADED
 L13 208 S L12 FULL SUB=L8
 L14 STRUCTURE UPLOADED
 L15 1 S L14 FULL SUB=L8

=> s 19 full sub=14

FULL SUBSET SEARCH INITIATED 13:04:47 FILE 'REGISTRY'

FULL SUBSET SCREEN SEARCH COMPLETED - 1459 TO ITERATE

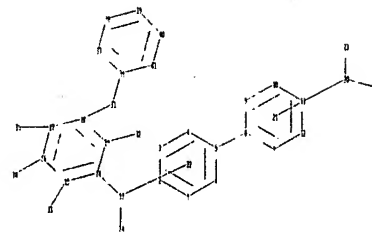
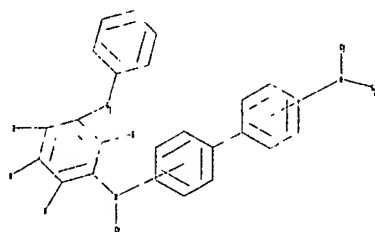
100.0% PROCESSED 1459 ITERATIONS
 SEARCH TIME: 00.00.01

457 ANSWERS

L16 457 SEA SUB=L4 SSS FUL L9

=>

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chain nodes :

13 20 23 24 30 31 32 33 34 35

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 14 15 16 17 18 19 36 37 38 39 40
 41

chain bonds :

5-8 13-14 13-24 15-33 16-34 17-35 18-31 19-32 20-23 20-30 31-36

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 14-15 14-19
15-16 16-17 17-18 18-19 36-37 36-41 37-38 38-39 39-40 40-41
exact/norm bonds :
13-14 13-24 18-31 20-23 20-30 31-36
exact bonds :
5-8 15-33 16-34 17-35 19-32
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 14-15 14-19
15-16 16-17 17-18 18-19 36-37 36-41 37-38 38-39 39-40 40-41
isolated ring systems :
containing 1 : 7 : 14 :

G1:O,S

G2:H,Cy

Connectivity :

23:2 M minimum RC ring/chain 24:2 M minimum RC ring/chain

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:CLASS 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom
20:CLASS 21:CLASS 22:CLASS 23:Any 24:Atom 30:CLASS 31:CLASS 32:CLASS
33:CLASS 34:CLASS 35:CLASS 36:Atom 37:Atom 38:Atom 39:Atom 40:Atom 41:Atom

Generic attributes :

23:

Saturation : Unsaturated

24:

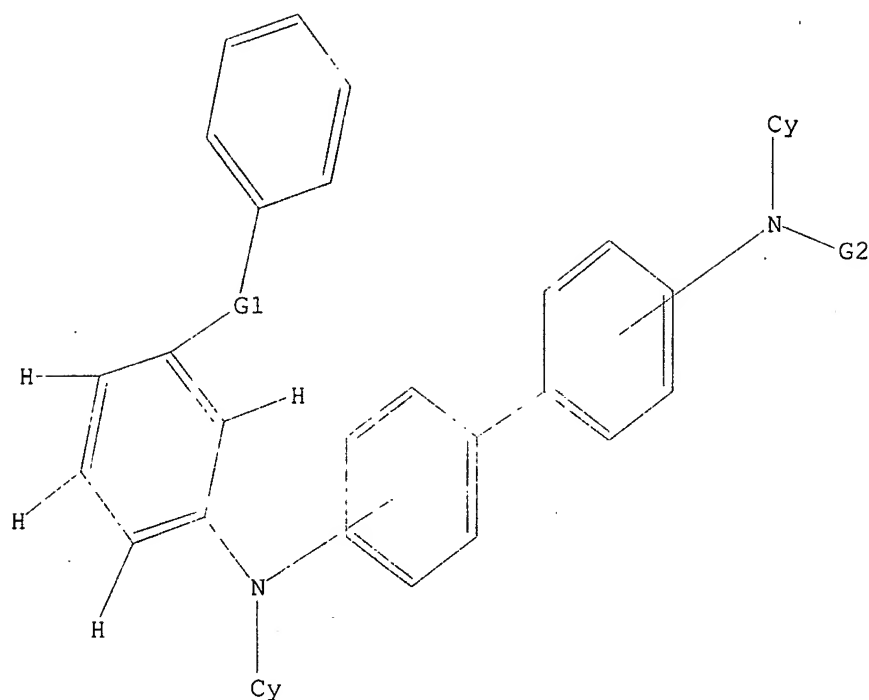
Saturation : Unsaturated

L17 STRUCTURE UPLOADED

=> d

L17 HAS NO ANSWERS

L17 STR



G1 O,S

G2 H,Cy

Structure attributes must be viewed using STN Express query preparation.

=> s l17 full sub=l16

FULL SUBSET SEARCH INITIATED 13:07:21 FILE 'REGISTRY'

FULL SUBSET SCREEN SEARCH COMPLETED - 0 TO ITERATE

100.0% PROCESSED 0 ITERATIONS

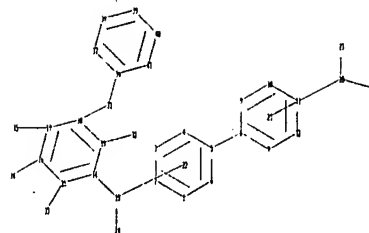
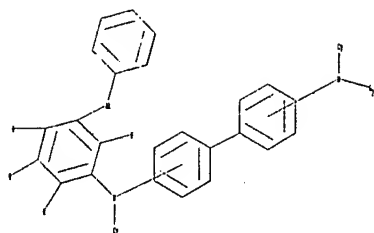
0 ANSWERS

SEARCH TIME: 00.00.01

L18 0 SEA SUB=L16 SSS FUL L17

=>

Uploading C:\Program Files\Stnexp\Queries\10783304\5_3 meta4.str



```

chain nodes :
13 20 23 24 30 31 32 33 34 35
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 14 15 16 17 18 19 36 37 38 39 40
41
chain bonds :
5-8 13-14 13-24 15-33 16-34 17-35 18-31 19-32 20-23 20-30 31-36
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 14-15 14-19
15-16 16-17 17-18 18-19 36-37 36-41 37-38 38-39 39-40 40-41
exact/norm bonds :
13-14 13-24 18-31 20-23 20-30 31-36
exact bonds :
5-8 15-33 16-34 17-35 19-32
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 14-15 14-19
15-16 16-17 17-18 18-19 36-37 36-41 37-38 38-39 39-40 40-41
isolated ring systems :
containing 1 : 7 : 14 :

```

G1:O,S

G2:H,Cy

Connectivity :

23:2 M minimum RC ring/chain 24:2 M minimum RC ring/chain

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:CLASS 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom
20:CLASS 21:CLASS 22:CLASS 23:Any 24:Atom 30:CLASS 31:CLASS 32:CLASS
33:CLASS 34:CLASS 35:CLASS 36:Atom 37:Atom 38:Atom 39:Atom 40:Atom 41:Atom

Generic attributes :

23:

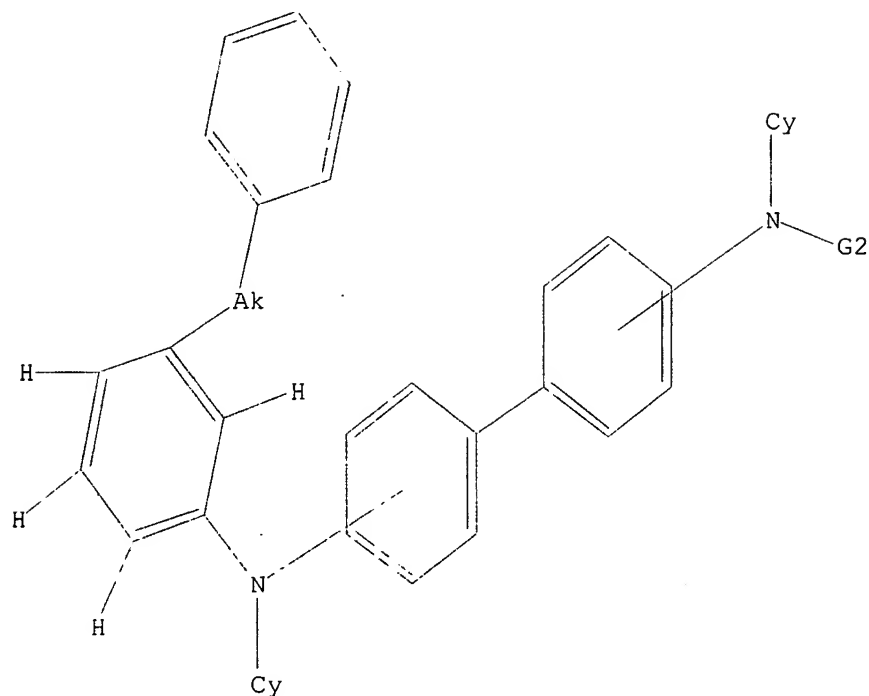
Saturation : Unsaturated
24:
Saturation : Unsaturated

L19 STRUCTURE UPLOADED

=> d

L19 HAS NO ANSWERS

L19 STR



G1 O,S

G2 H,Cy

Structure attributes must be viewed using STN Express query preparation.

=> s l19 full sub=l16

FULL SUBSET SEARCH INITIATED 13:08:09 FILE 'REGISTRY'

FULL SUBSET SCREEN SEARCH COMPLETED - 457 TO ITERATE

100.0% PROCESSED 457 ITERATIONS

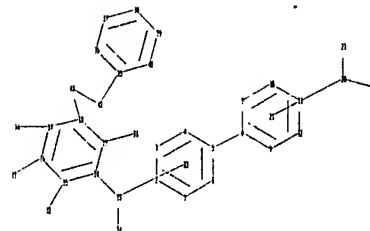
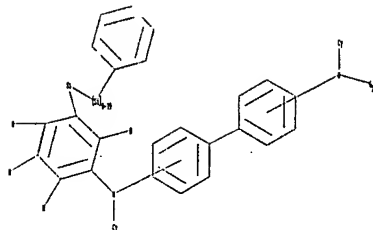
6 ANSWERS

SEARCH TIME: 00.00.01

L20 6 SEA SUB=L16 SSS FUL L19

=>

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```

chain nodes :
13 20 23 24 30 31 32 33 34 41 42
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 14 15 16 17 18 19 35 36 37 38 39
40
chain bonds :
5-8 13-14 13-24 15-32 16-33 17-34 18-41 19-31 20-23 20-30 35-42 41-42
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 14-15 14-19
15-16 16-17 17-18 18-19 35-40 35-36 36-37 37-38 38-39 39-40
exact/norm bonds :
13-14 13-24 20-23 20-30
exact bonds :
5-8 15-32 16-33 17-34 18-41 19-31 35-42 41-42
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 14-15 14-19
15-16 16-17 17-18 18-19 35-40 35-36 36-37 37-38 38-39 39-40
isolated ring systems :
containing 1 : 7 : 14 :

```

G1:O,S

G2:H,Cy

Connectivity :

23:2 M minimum RC ring/chain 24:2 M minimum RC ring/chain

Match level :

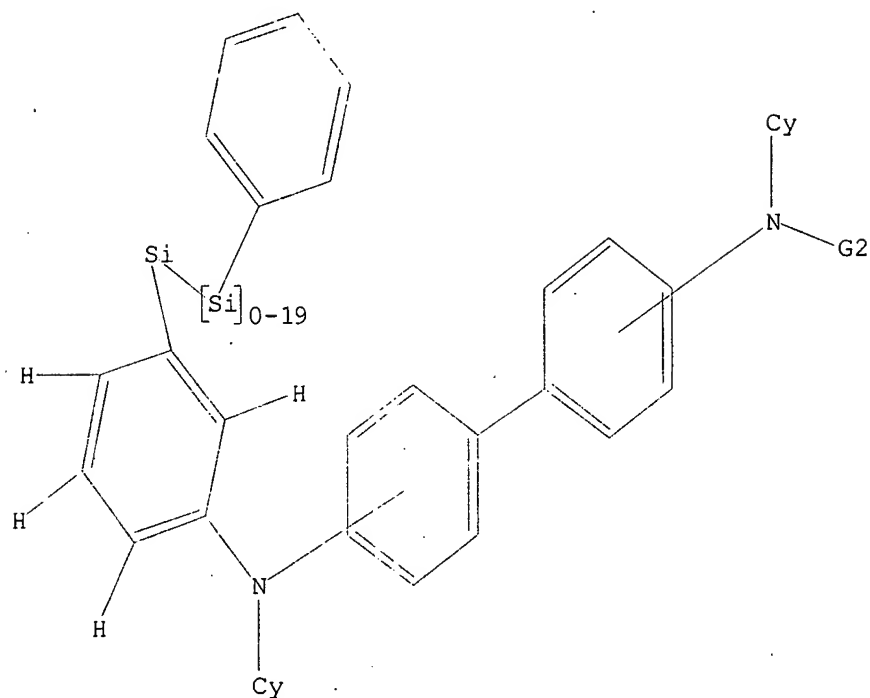
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:CLASS 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom
20:CLASS 21:CLASS 22:CLASS 23:Any 24:Atom 30:CLASS 31:CLASS 32:CLASS
33:CLASS 34:CLASS 35:Atom 36:Atom 37:Atom 38:Atom 39:Atom 40:Atom 41:CLASS
42:CLASS

Generic attributes :

23:
Saturation : Unsaturated
24:
Saturation : Unsaturated

L21 STRUCTURE UPLOADED

=> d
L21 HAS NO ANSWERS
L21 STR



G1 O,S
G2 H,Cy

Structure attributes must be viewed using STN Express query preparation.

=> s l21 full sub=l16
FULL SUBSET SEARCH INITIATED 13:09:27 FILE 'REGISTRY'
FULL SUBSET SCREEN SEARCH COMPLETED - 0 TO ITERATE

100.0% PROCESSED 0 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

L22 0 SEA SUB=L16 SSS FUL L21

=> d his

(FILE 'HOME' ENTERED AT 12:49:21 ON 20 NOV 2006)

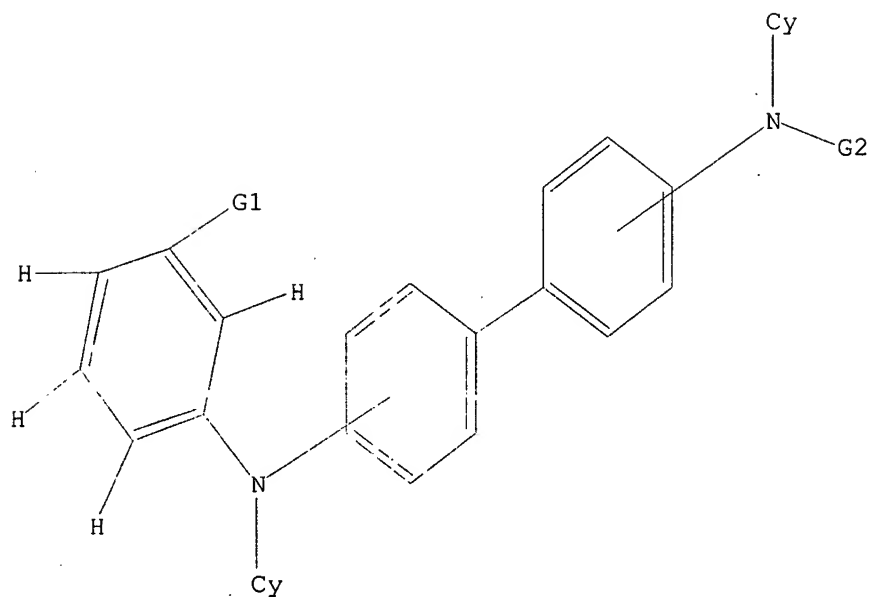
FILE 'REGISTRY' ENTERED AT 12:49:34 ON 20 NOV 2006

L1 STRUCTURE UPLOADED
L2 3553 S L1 FULL
L3 STRUCTURE UPLOADED
L4 3316 S L3 FULL SUB=L2
L5 STRUCTURE UPLOADED
L6 1802 S L5 FULL SUB=L4
L7 STRUCTURE UPLOADED
L8 1646 S L7 FULL SUB=L6
L9 STRUCTURE UPLOADED
L10 STRUCTURE UPLOADED
L11 25 S L10 FULL SUB=L8
L12 STRUCTURE UPLOADED
L13 208 S L12 FULL SUB=L8
L14 STRUCTURE UPLOADED
L15 1 S L14 FULL SUB=L8
L16 457 S L9 FULL SUB=L4
L17 STRUCTURE UPLOADED
L18 0 S L17 FULL SUB=L16
L19 STRUCTURE UPLOADED
L20 6 S L19 FULL SUB=L16
L21 STRUCTURE UPLOADED
L22 0 S L21 FULL SUB=L16

=> d 19

L9 HAS NO ANSWERS

L9 STR



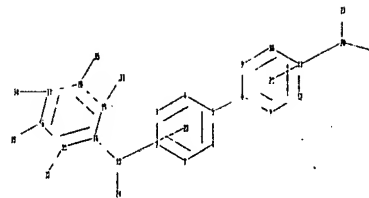
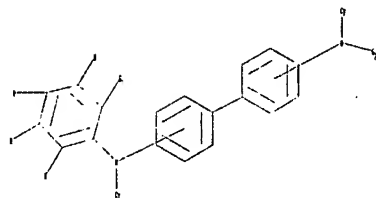
G1 C,O,S,Si

G2 H,Cy

Structure attributes must be viewed using STN Express query preparation.

=>

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```

chain nodes :
13 20 23 24 30 31 32 33 34 35
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 14 15 16 17 18 19
chain bonds :
5-8 13-14 13-24 15-32 16-33 17-34 18-35 19-31 20-23 20-30
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 14-15 14-19
15-16 16-17 17-18 18-19
exact/norm bonds :
13-14 13-24 19-31 20-23 20-30
exact bonds :
5-8 15-32 16-33 17-34 18-35
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 14-15 14-19
15-16 16-17 17-18 18-19
isolated ring systems :
containing 1 : 7 : 14 :

```

G1:C,O,S,Si

G2:H,Cy

Connectivity :

23:2 M minimum RC ring/chain 24:2 M minimum RC ring/chain

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
 11:Atom 12:Atom 13:CLASS 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom
 20:CLASS 21:CLASS 22:CLASS 23:Any 24:Atom 30:CLASS 31:CLASS 32:CLASS
 33:CLASS 34:CLASS 35:CLASS

Generic attributes :

23:

Saturation : Unsaturated

24:

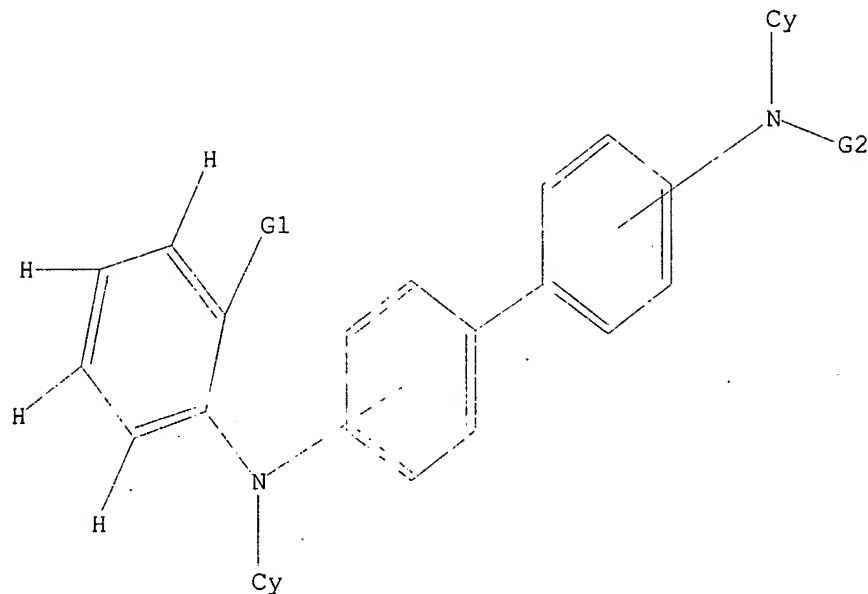
Saturation : Unsaturated

L23 STRUCTURE UPLOADED

=> d

L23 HAS NO ANSWERS

L23 STR



G1 C,O,S,Si

G2 H,Cy

Structure attributes must be viewed using STN Express query preparation.

=> s 123 full sub=l4

FULL SUBSET SEARCH INITIATED 13:11:56 FILE 'REGISTRY'

FULL SUBSET SCREEN SEARCH COMPLETED - 1061 TO ITERATE

100.0% PROCESSED 1061 ITERATIONS

23 ANSWERS

SEARCH TIME: 00.00.01

L24 23 SEA SUB=L4 SSS FUL L23

=> d his

(FILE 'HOME' ENTERED AT 12:49:21 ON 20 NOV 2006)

FILE 'REGISTRY' ENTERED AT 12:49:34 ON 20 NOV 2006

L1 STRUCTURE UPLOADED

L2 3553 S L1 FULL

L3 STRUCTURE UPLOADED

L4 3316 S L3 FULL SUB=L2

```

L5          STRUCTURE UPLOADED
L6          1802 S L5 FULL SUB=L4
L7          STRUCTURE UPLOADED
L8          1646 S L7 FULL SUB=L6
L9          STRUCTURE UPLOADED
L10         STRUCTURE UPLOADED
L11         25 S L10 FULL SUB=L8
L12         STRUCTURE UPLOADED
L13         208 S L12 FULL SUB=L8
L14         STRUCTURE UPLOADED
L15         1 S L14 FULL SUB=L8
L16         457 S L9 FULL SUB=L4
L17         STRUCTURE UPLOADED
L18         0 S L17 FULL SUB=L16
L19         STRUCTURE UPLOADED
L20         6 S L19 FULL SUB=L16
L21         STRUCTURE UPLOADED
L22         0 S L21 FULL SUB=L16
L23         STRUCTURE UPLOADED
L24         23 S L23 FULL SUB=L4

```

=> fil caplus

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
617.50	617.71

FULL ESTIMATED COST

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 FILE LAST UPDATED: 19 Nov 2006 (20061119/ED)

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<http://www.cas.org/infopolicy.html>

=> s 124

L25 27 L24

=> s 120

L26 4 L20

=> s 111

L27 16 L11

=> s 113

L28 106 L13

=> s 115

L29 1 L15

=> s 125 or 126 or 127 or 128 or 129

L30 143 L25 OR L26 OR L27 OR L28 OR L29

=> d ibib abs hitstr 1-143

L30 ANSWER 1 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2006:1147747 CAPLUS
 TITLE: High-sensitivity photoreceptor drums and
 hole-transporting diaminobiphenyl derivatives

therefor
 INVENTOR(S): Ichiguchi, Tetsuya
 PATENT ASSIGNEE(S): Kyocera Mita Industrial Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 23pp.
 CODEN: JKXXAF

DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006298852	A2	20061102	JP 2005-124430	20050422
PRIORITY APPLN. INFO.:			JP 2005-124430	20050422

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

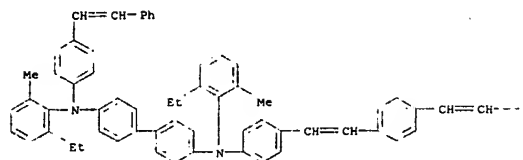
AB The diaminobiphenyl derivs., expanding conjugated systems over all the mol. structure, are represented by I [R1-R8 = aryl, alkyl(oxy); R9-R23 = halo, aryl, alkyl(oxy); a-e = 0-4; f-i = 0-3; j, k, m, n = 0-4; l, o = 0-5; s, t, x, y ≥ 1]. Electrophotog. drums containing the derivs. in photosensitive layers as hole-transporting agents and showing fine chargeability and good durability, are also claimed.

IT 913360-99-3P 913361-00-9P 913361-01-0P
 RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (hole-transporting agents; high-sensitivity photoreceptor drums containing prescribed diaminobiphenyl derivs. as hole transporting agents)

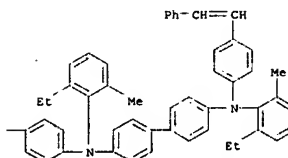
RN 913360-99-3 CAPLUS
 CN INDEX NAME NOT YET ASSIGNED

L30 ANSWER 1 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

PAGE 1-A

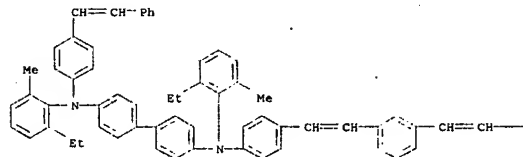


PAGE 1-B



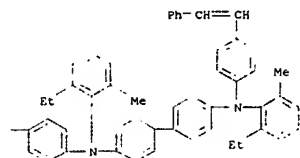
RN 913361-00-9 CAPLUS
 CN INDEX NAME NOT YET ASSIGNED

PAGE 1-A



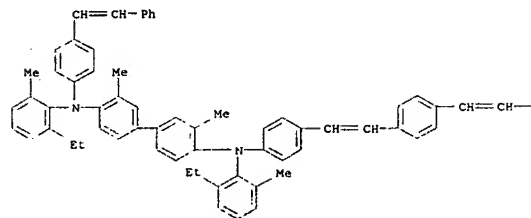
L30 ANSWER 1 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

PAGE 1-B



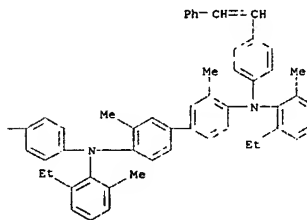
RN 913361-01-0 CAPLUS
 CN INDEX NAME NOT YET ASSIGNED

PAGE 1-A



L30 ANSWER 1 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

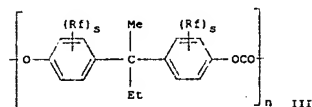
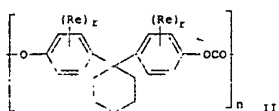
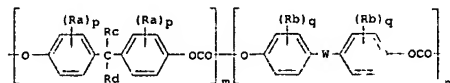
PAGE 1-B



L30 ANSWER 2 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2006:1091644 CAPLUS
 DOCUMENT NUMBER: 145:446224
 TITLE: Electrophotographic photoconductor showing excellent abrasion-resistance and oil-resistance and image formation apparatus using the same
 INVENTOR(S): Azuma, Jun
 PATENT ASSIGNEE(S): Kyocera Mita Industrial Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 33pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

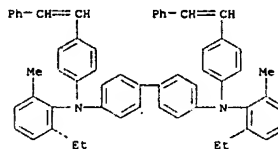
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006284679	A2	20061019	JP 2005-101299	20050331
PRIORITY APPLN. INFO.:			JP 2005-101299	20050331

GI



AB The title electrophotog. photoconductor comprises on a conductive support a light-sensitive layer containing at least a charge generation agent, a pos.

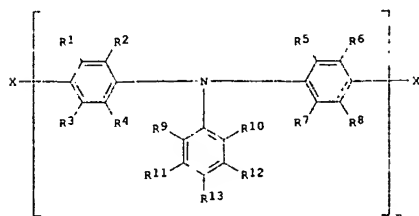
L30 ANSWER 2 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 hole transport agent, and a binder resin, wherein the binder resin is a polycarbonate(s) contg. a structural repeating unit(s) of I [Ra, Rb = H, halo, Cl-4-alkyl, C6-30-aryl; p, q = 0-4; Rc, Rd = H, Cl-2-alkyl; W = single bond, -O-, -CO-; m, n = mol ratio satisfying 0.05<n/(n+m)<0.6], II [Re = H, Cl-4-alkyl, C6-30-aryl; r = 0-4], and/or III [Rf = H, Cl-4-alkyl, C6-30-aryl; s = 0-4].
 IT 850255-79-7
 RL: DEV (Device component use); USES (Uses)
 (pos. hole transport agent in electrophotog. photoconductor showing excellent abrasion-resistance and oil-resistance)
 RN 850255-79-7 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine,
 N,N'-bis(2-ethyl-6-methylphenyl)-N,N'-bis[4-(2-phenylethenyl)phenyl]- (9CI) (CA INDEX NAME)



L30 ANSWER 3 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2006:793234 CAPLUS
 DOCUMENT NUMBER: 145:221146
 TITLE: Electrophotographic photoreceptor containing aromatic polyamine charge-transporting agent, process cartridge, and apparatus
 INVENTOR(S): Kaku, Kenichi; Tanaka, Takakazu; Ogaki, Harunobu
 PATENT ASSIGNEE(S): Canon Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 21pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

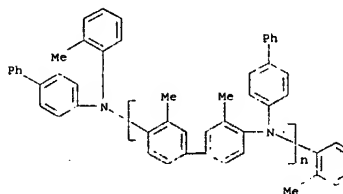
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006208572	A2	20060810	JP 2005-18296	20050126
PRIORITY APPLN. INFO.:			JP 2005-18296	20050126

GI



AB The photoreceptor comprises a support and a photosensitive layer containing a charge-generating agent, an antioxidant, and I (R1-13, X = H, halo, alkyl, alkoxy, aryl, aromatic heterocycle, fluoroalkyl, cyano, nitro; n = 4-50) as a polymer charge-transporting agent. Process cartridge and electrophotog. apparatus using the photoreceptor are also claimed. The photoreceptor shows high sensitivity and gives stable image without memory effect even under high temperature and moisture conditions.
 IT 904892-16-6
 RL: DEV (Device component use); USES (Uses)
 (electrophotog. photoreceptor with photosensitive layer containing aromatic

L30 ANSWER 3 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 polyamine charge-transporting agent)
 RN 904892-16-6 CAPLUS
 CN Poly([1,1'-biphenyl]-4-ylimino) (3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl), α-(2-methylphenyl)-ω-[[1,1'-biphenyl]-4-yl (2-methylphenyl)amino]- (9CI) (CA INDEX NAME)

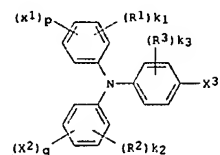


L30 ANSWER 4 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2006:767709 CAPLUS
 DOCUMENT NUMBER: 145:177238
 TITLE: Electrophotographic apparatuses, their

photoreceptors, and triarylamine-type charge transporting materials therefor
 INVENTOR(S): Hirano, Akira
 PATENT ASSIGNEE(S): Fujii Kerox Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 54 pp.
 CODEN: JRXKAP
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006201393	A2	20060803	JP 2005-11971	20050119
PRIORITY APPLN. INFO.:			JP 2005-11971	20050119

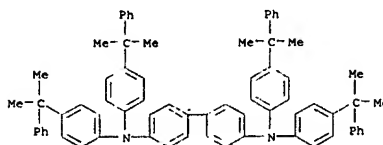
GI



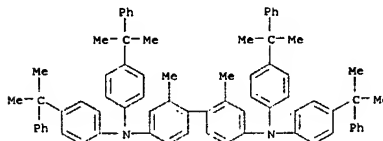
I

AB Charge-transporting materials I [X1, X2 = CX4X5X6 (X4-X6 = C1-6 hydrocarbyl, aromatic group); p, q = 1-5; R1-R3 = H, C1-4 alkyl(oxy); k1, k2 = 0-4; k3 = 1-4; X3 = monovalent organic group] are claimed.
 Photoreceptor drums containing the materials in photosensitive layers exhibit superior high photosensitivity and quick response.
 IT 213968-61-7P 900524-69-8P 900524-70-1P 900524-71-2P 900524-72-3P 900524-73-4P
 RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
 charge (long-life photoreceptors containing prescribed triarylamine-type transporting agents)
 RN 213968-61-7 CAPLUS

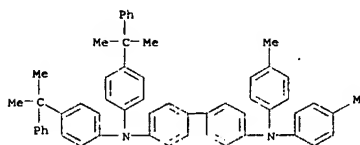
L30 ANSWER 4 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N,N',N'-tetrakis[4-(1-methyl-1-phenylethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 900524-69-8 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, 2,2'-dimethyl-N,N,N',N'-tetrakis[4-(1-methyl-1-phenylethyl)phenyl]- (9CI) (CA INDEX NAME)

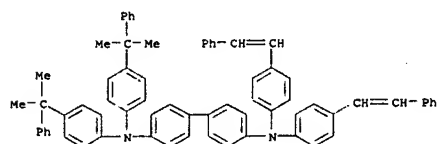


RN 900524-70-1 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N-bis[4-(1-methyl-1-phenylethyl)phenyl]-N',N'-bis[4-(1-methyl-1-phenylethyl)phenyl]- (9CI) (CA INDEX NAME)

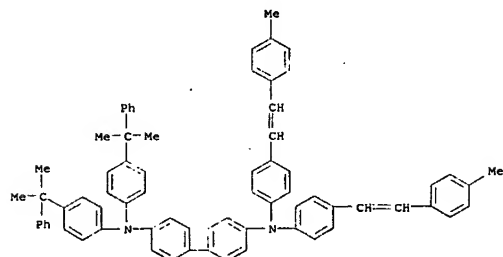


RN 900524-71-2 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N-bis[4-(1-methyl-1-phenylethyl)phenyl]-N',N'-bis[4-(2-phenylethenyl)phenyl]- (9CI) (CA INDEX NAME)

L30 ANSWER 4 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

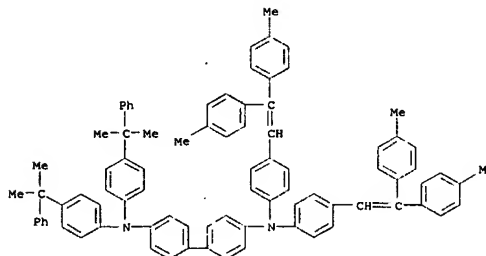


RN 900524-72-3 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N-bis[4-(2-(4-methylphenyl)ethenyl)phenyl]-N',N'-bis[4-(1-methyl-1-phenylethyl)phenyl]- (9CI) (CA INDEX NAME)

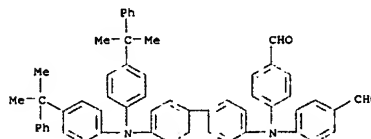


RN 900524-73-4 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N-bis[4-(2-bis(4-methylphenyl)ethenyl)phenyl]-N',N'-bis[4-(1-methyl-1-phenylethyl)phenyl]- (9CI) (CA INDEX NAME)

L30 ANSWER 4 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



IT 900524-78-9P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation);
 RACT (Reactant or reagent)
 charge (long-life photoreceptors containing prescribed triarylamine-type transporting agents)
 RN 900524-78-9 CAPLUS
 CN Benzaldehyde, 4,4'-[[4'-[bis[4-(1-methyl-1-phenylethyl)phenyl]amino][1,1'-biphenyl]-4-yl]imino]bis- (9CI) (CA INDEX NAME)



L30 ANSWER 5 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:734561 CAPLUS
 DOCUMENT NUMBER: 145:198514
 TITLE: Triarylamine derivatives with space-filling side groups and use thereof
 INVENTOR(S): Lischewski, Volker; Tschunarjew, Mirko; Diener, Gerhard; Witt, Wolfgang
 PATENT ASSIGNEE(S): Sensient Imaging Technologies GmbH, Germany
 SOURCE: PCT Int. Appl., 40 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

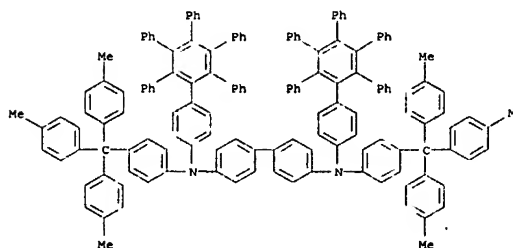
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 200607130	A1	20060727	WO 2006-EP477	20060117
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CP, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RM:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TK, TR, BF, BJ, CF, CG, CI, CH, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
DE 102005003634	A1	20060727	DE 2005-102005003634	20050121
PRIORITY APPLN. INFO.:			DE 2005-102005003634A	20050121
			DE 2005-102005003634A	20050623

AB The title triarylamine derivs. are described by the general formula R1(R2)N-[ArN(R3)]n-R4 (n = 1-10; R1-4 = independently selected aryl groups, with the restriction that 2l of R1-4 is a 1,3,5-triphenylbenzene derivative bonded to the nitrogen at the 4 position of one of the Ph groups; and Ar = a biphenyl group, a group comprising 2 Ph groups linked by an alkenyl or an alkynyl group, a fluorene derivative, a silafluorene derivative, a carbazole derivative, a thiafluorene group, or dibenzofuran derivative). The use of the derivs. as hole-transporting materials in electrophotog. devices, and as hole-transporting materials in electroluminescent devices, is also described, as are organic electroluminescent devices using them.

IT 901816-35-1
 RL: DEV (Device component use); USES (Uses)
 (triarylamine derivs. with space-filling side groups and their use as hole-transporting and luminescent materials)

RN 901816-35-1 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine,
 N,N'-bis(3',4',5',6'-tetraphenyl[1,1':2',1''-

L30 ANSWER 5 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 terphenyl]-4-yl)-N,N'-bis[4-(tris(4-methylphenyl)methyl)phenyl]- (9CI)
 (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
 FORMAT

L30 ANSWER 6 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

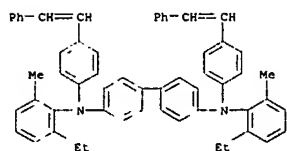
ACCESSION NUMBER: 2006:707174 CAPLUS
 DOCUMENT NUMBER: 145:156028
 TITLE: Single layer type electrophotographic photoconductor and image forming device
 INVENTOR(S): Kuboshima, Daisuke; Hamasaki, Kazunari; Nakai, Norio
 PATENT ASSIGNEE(S): Japan
 SOURCE: U.S. Pat. Appl. Publ., 30 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006160005	A1	20060720	US 2006-325061	20060104
JP 2006227578	A2	20060831	JP 2005-305952	20051020
CN 1808288	A	20060726	CN 2005-10137620	20051226
PRIORITY APPLN. INFO.:			JP 2005-10557	A 20050118

AB The present invention provides a single layer type electrophotog. photoconductor which exhibits the small number of generated black spots in a formed image and exhibits the excellent sensitivity characteristic even when the photoconductor is used for a long time or a photoconductor drum is rotated at a high speed and an image display device which includes the single layer type electrophotog. photoconductor. In the single layer type electrophotog. photoconductor which includes a photoconductive layer containing a binding resin, a hole transporting agent and an charge generating agent, the photoconductor contains a water-repellent polycarbonate resin as the binding resin, and a contact angle of pure water (measured temperature: 25°) with respect to the photoconductive layer is set to 100° or more.

IT 850255-79-7
 RL: DEV (Device component use); USES (Uses)
 (Single layer-type electrophotog. photoreceptor containing)

RN 850255-79-7 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine,
 N,N'-bis(2-ethyl-6-methylphenyl)-N,N'-bis(4-(2-phenylethenyl)phenyl)- (9CI) (CA INDEX NAME)



L30 ANSWER 7 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:635025 CAPLUS
 DOCUMENT NUMBER: 145:113311
 TITLE: Electrophotographic photoreceptor containing hole transporting agent and image forming apparatus
 INVENTOR(S): Kuboshima, Daisuke; Miyamoto, Eiichi; Hamasaki, Kazunari; Nakai, Norio; Inagaki, Yoshio; Okada, Hideki; Ichiguchi, Tetsuya; Maruo, Keiji
 PATENT ASSIGNEE(S): Kyocera Mita Corporation, Japan
 SOURCE: U.S. Pat. Appl. Publ., 23 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

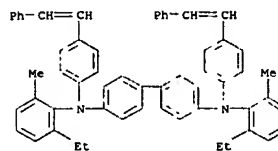
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006141377	A1	20060629	US 2005-317852	20051222
JP 2006201742	A2	20060803	JP 2005-252841	20050831
PRIORITY APPLN. INFO.:			JP 2004-373635	A 20041224

AB The present invention provides an electrophotog. photoreceptor comprising a photosensitive layer that contains at least a charge generating agent, a hole transport agent and a predetd. additive. The hole transport agent satisfies the following formulas (A) and (B): $\mu/M < 1.2 \times 10^{-8}$ and $\mu > 5.50 \times 10^{-6}$ (μ = hole mobility in $\text{cm}^2/\text{V}\cdot\text{s}$ of hole-transporting agent; and M mol. weight of hole transporting agent).

The electrophotog. photoreceptor prevents image defect from occurring and can meet the demand for higher speed image forming apparatuses, by reducing the adhesion of paper dust and preventing the occurrence of cracks.

IT 850255-79-7 874655-28-4 890898-88-1
 894791-07-2
 RL: DEV (Device component use); USES (Uses)
 (hole-transporting agent; Electrophotog. photoreceptor from)

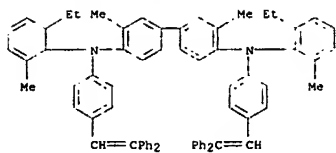
RN 850255-79-7 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine,
 N,N'-bis(2-ethyl-6-methylphenyl)-N,N'-bis(4-(2-phenylethenyl)phenyl)- (9CI) (CA INDEX NAME)



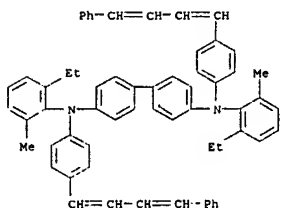
RN 874655-28-4 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine,
 N,N'-bis[4-(2,2-diphenylethenyl)phenyl]-N,N'-bis(2-ethyl-6-methylphenyl)-3,3'-dimethyl- (9CI) (CA INDEX NAME)

L30 ANSWER 7 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

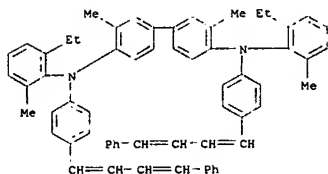
L30 ANSWER 7 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 890898-88-1 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine,
 N,N'-bis(2-ethyl-6-methylphenyl)-N,N'-bis[4-
 (4-phenyl-1,3-butadienyl)phenyl]- (9CI) (CA INDEX NAME)



RN 894791-07-2 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(2-ethyl-6-methylphenyl)-3,3'-
 dimethyl-N,N'-bis[4-(4-phenyl-1,3-butadienyl)phenyl]- (9CI) (CA INDEX
 NAME)

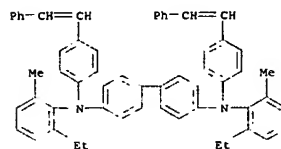


L30 ANSWER 8 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2006:578683 CAPLUS
 DOCUMENT NUMBER: 145:73282
 TITLE: Lamine-type electrophotographic photoreceptor and
 imaging device
 INVENTOR(S): Honma, Toshikazu
 PATENT ASSIGNEE(S): Kyocera Mita Industrial Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 26 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006153953	A2	20060615	JP 2004-340526	20041125
PRIORITY APPLN. INFO.:			JP 2004-340526	20041125

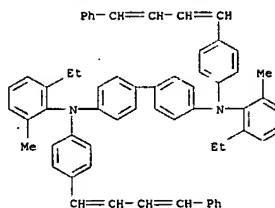
AB Title photoreceptor is characterized by containing a pos.
 hole-transporting
 agent which is an aminostilbene derivative
 IT 850255-79-7 890898-88-1
 RL: MOA (Modifier or additive use); USES (Uses)
 (lamine-type electrophotog. photoreceptor containing aminostilbene
 pos. hole-transporting agent)

RN 850255-79-7 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine,
 N,N'-bis(2-ethyl-6-methylphenyl)-N,N'-bis[4-
 (2-phenylethenyl)phenyl]- (9CI) (CA INDEX NAME)



RN 890898-88-1 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine,
 N,N'-bis(2-ethyl-6-methylphenyl)-N,N'-bis[4-
 (4-phenyl-1,3-butadienyl)phenyl]- (9CI) (CA INDEX NAME)

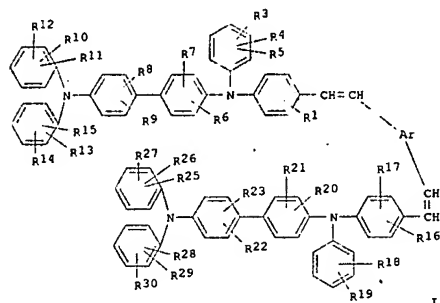
L30 ANSWER 8 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



L30 ANSWER 9 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2006:541108 CAPLUS
 DOCUMENT NUMBER: 145:37272
 TITLE: Diaminobiphenyl derivatives and electrophotographic photoreceptors containing them
 INVENTOR(S): Inagaki, Yoshio; Azuma, Jun
 PATENT ASSIGNEE(S): Kyocera Mita Industrial Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 23 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006143692	A2	20060608	JP 2004-339771	20041125
PRIORITY APPLN. INFO.:			JP 2004-339771	20041125

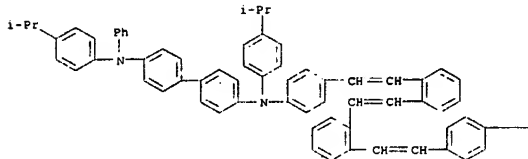
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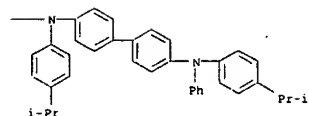
AB The derivs. are represented by I (Ar = arylene, heterocyclylene; R1-R30 = H, halo, alkyl, aryl). Electrophotog. photoreceptors using I as hole transporting materials show high sensitivity.
 IT 889454-19-6P 889454-19-7P
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (preparation of
 bis[N-phenyl-N-[(N,N-diphenylamino)biphenyl]aminostyryl]ar

L30 ANSWER 9 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

PAGE 1-A

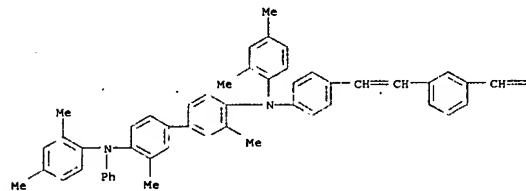


PAGE 1-B

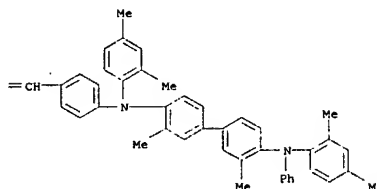


L30 ANSWER 9 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 enes or heterocycles as hole transporting materials for electrophotog. photoreceptors)
 RN 889454-18-6 CAPLUS
 CN (1,1'-Biphenyl)-4,4'-diamine, N,N'-[1,3-phenylenebis(2,1-ethenediyl-4,1-phenylene)]bis[N,N'-bis(2,4-dimethylphenyl)-3,3'-dimethyl-N'-phenyl-phenylene]
 (9CI) (CA INDEX NAME)

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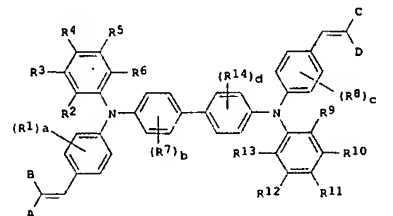


RN 889454-19-7 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-[1,2-ethenediylbis(2,1-phenylene-2,1-ethenediyl-4,1-phenylene)]bis[N,N'-bis(4-(1-methylethyl)phenyl)-N'-phenyl-phenylene]
 (9CI) (CA INDEX NAME)

L30 ANSWER 10 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2006:381076 CAPLUS
 DOCUMENT NUMBER: 144:422647
 TITLE: Electrophotographic photoreceptor containing aminestilbene derivative hole-transporting agent and apparatus for wet development
 INVENTOR(S): Tetsuya
 Ichiguchi,
 PATENT ASSIGNEE(S): Kyocera Mita Industrial Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 29 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

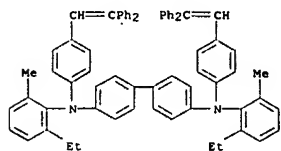
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006113312	A2	20060427	JP 2004-300910	20041015
PRIORITY APPLN. INFO.:			JP 2004-300910	20041015

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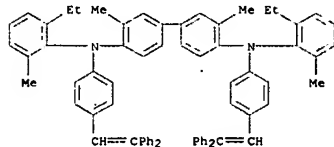


AB The photoreceptor for wet development contains a binder, a charge-generating agent, and a hole-transporting agent containing an aminestilbene derivative I [A, B, C, D, R1-14 = H, halo, (un)substituted alkyl, C1-20 alkyl halide, C1-20 alkoxy, C6-20 aryl, amino; ≥ 2 of R2-6 or ≥ 2 of R9-13 form carbon ring; a-d = 0-4] with mol. weight ≥ 900 . The apparatus comprises the photoreceptor, and charging, exposing, developing, and transporting devices, in which image is formed by using liquid developer comprising toner dispersed in hydrocarbon solvent.
 The photoreceptor shows good durability, solvent resistance, and shows high sensitivity for a long period.
 IT 865787-28-6 874655-28-4
 RL: DEV (Device component use); USES (Uses)
 (hole-transporting agent: electrophotog. photoreceptor containing aminestilbene derivative as hole-transporting agent)

L30 ANSWER 10 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 RN 865787-28-6 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine,
 N,N'-bis[4-(2,2-diphenylethenyl)phenyl]-N,N'-
 bis(2-ethyl-6-methylphenyl)- (9CI) (CA INDEX NAME)



RN 874655-28-4 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine,
 N,N'-bis[4-(2,2-diphenylethenyl)phenyl]-N,N'-
 bis(2-ethyl-6-methylphenyl)-3,3'-dimethyl- (9CI) (CA INDEX NAME)



L30 ANSWER 11 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2006:347837 CAPLUS
 DOCUMENT NUMBER: 145:112842
 TITLE: PTPD/Alq3 heterostructure electroluminescent diode
 and

AUTHOR(S): Nie, Hai; Zhang, Bo; Tang, Xian-zhong; Li, Yuan-xun
 CORPORATE SOURCE: School of Microelectronics and Solid-State
 Electronics, Univ. of Electronics Science and Tech.
 of

SOURCE: China, Chengdu, Sichuan, 610054, Peop. Rep. China
 Huanan Ligong Daxue Xuebao, Ziran Kexueban (2006),
 34(1), 48-51
 CODEN: HLDKEZ; ISSN: 1000-565X

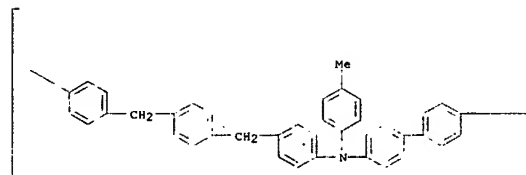
PUBLISHER: Huanan Ligong Daxue Xuebao Bianji Weiyuanhui
 DOCUMENT TYPE: Journal
 LANGUAGE: Chinese

AB ITO/PTPD/Alq3/Mg:Ag heterostructure electroluminescent diode was
 fabricated by using a novel poly-TPD as the hole transport material, and
 its electroluminescent properties was studied. Only the intrinsic
 emission of PTPD (poly-TPD) is obtained when Alq3 layer is very thin
 (≤ 10 nm), and that only the intrinsic emission of Alq3 is obtained
 when the thickness of Alq3 layer is ≤ 50 nm. The fabricated diode
 is of an improved stability due to the excellent thermal stability and
 film quality of PTPD, as compared with the typical ITO/TPD/Alq3/Mg:Ag
 device.

IT 404589-25-9, Poly-TPD
 RL: DEV (Device component use); USES (Uses)
 (heterostructure with aluminum hydroxyquinolato complex in
 electroluminescent diode)

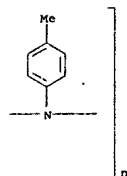
RN 404589-25-9 CAPLUS
 CN Poly[[(4-methylphenyl)imino][1,1'-biphenyl]-4,4'-diyl[(4-
 methylphenyl)imino]-1,4-phenylenemethylene-1,4-phenylenemethylene-1,4-
 phenylene] (9CI) (CA INDEX NAME)

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L30 ANSWER 11 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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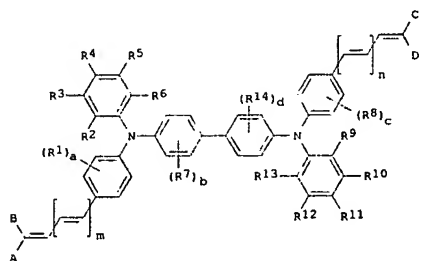


L30 ANSWER 12 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2006:322027 CAPLUS
 DOCUMENT NUMBER: 144:379024
 TITLE: Image-forming apparatus containing aminestylbene
 derivative positive hole transporting agent in
 photoreceptor
 INVENTOR(S): Kuboshima, Daisuke; Hamazaki, Kazuya; Nakai, Norio
 PATENT ASSIGNEE(S): Kyocera Mita Industrial Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 26 pp.
 CODEN: JKXXAF

DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006091488	A2	20060406	JP 2004-277466	20040924
PRIORITY APPLN. INFO.:			JP 2004-277466	20040924

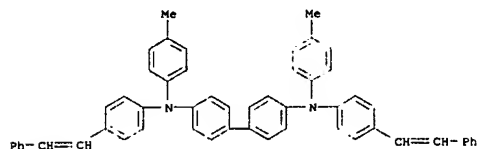
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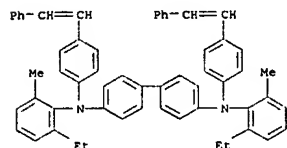
AB Disclosed is an image-forming apparatus comprising a single layer-type
 electrophotog. photoreceptor containing a charge generating agent, a
 pos. hole
 transporting agent, and a binder resin in a photosensitive layer, wherein
 said pos. hole transporting agent is an aminestylbene derivative
 represented
 by I (A-D and R1-12 = substituent; a-d = 0-4; and m, n = 0-3). The
 image-forming apparatus is of a cleanerless type. The use of the
 aminestylbene
 derivative prevented the generation of exposure memory.

IT 164581-10-6 850255-79-7 881914-55-2
 881914-56-3 881914-57-4 881914-60-9
 RL: DEV (Device component use); USES (Uses)
 (electrophotog. photoreceptor containing aminestylbene derivative
 pos. hole
 transporting agent)

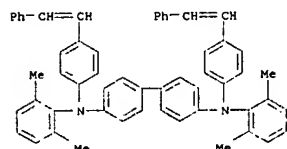
L30 ANSWER 12 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 RN 164581-10-6 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-methylphenyl]-N,N'-bis[4-(2-phenylethenyl)phenyl]- (9CI) (CA INDEX NAME)



RN 850255-79-7 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[2-ethyl-6-methylphenyl]-N,N'-bis[4-(2-phenylethenyl)phenyl]- (9CI) (CA INDEX NAME)



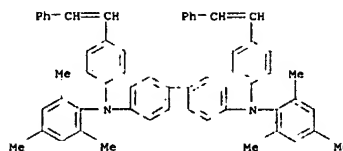
RN 881914-55-2 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[2,6-dimethylphenyl]-N,N'-bis[4-(2-phenylethenyl)phenyl]- (9CI) (CA INDEX NAME)



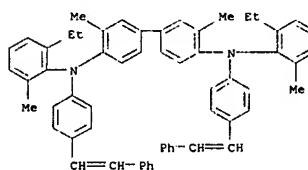
RN 881914-56-3 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-(2-phenylethenyl)phenyl]-N,N'-bis[2,4,6-trimethylphenyl]- (9CI) (CA INDEX NAME)

L30 ANSWER 12 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

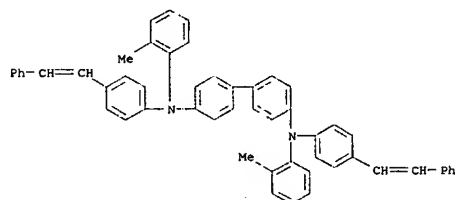
L30 ANSWER 12 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 881914-57-4 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[2-ethyl-6-methylphenyl]-3,3'-dimethyl-N,N'-bis[4-(2-phenylethenyl)phenyl]- (9CI) (CA INDEX NAME)



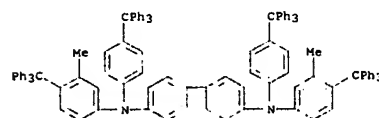
RN 881914-60-9 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[2-methylphenyl]-N,N'-bis[4-(2-phenylethenyl)phenyl]- (9CI) (CA INDEX NAME)



L30 ANSWER 13 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2006:298776 CAPLUS
 DOCUMENT NUMBER: 144:360250
 TITLE: Imaging member
 INVENTOR(S): Tong, Yuhua; Fuller, Timothy J.; Pan, Sean X.; Yanus, John F.; Klymachyov, Alexander N.; Fu, Min-Hong; Prosser, Dennis J.; Vandusen, Susan M.
 PATENT ASSIGNEE(S): Xerox Corporation, USA
 SOURCE: U.S. Pat. Appl., 13 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006068309	A1	20060330	US 2004-954378	20040930
BR 2005004216	A	20060509	BR 2005-4216	20050930
PRIORITY APPLN. INFO.:			US 2004-954378	A 20040930

AB A charge transport layer for an imaging member comprises a charge transport material with a nitrogen mol. defense system not exhibiting early onset of charge transport layer fatigue cracking. The nitrogen mol. defense system includes attaching bulky organic groups to charge transport materials. The bulky groups aid in preventing recrystn. of the charge transport mol. and shield the nitrogen from mol. attack, such as by oxidation. The charge transport layer exhibits excellent wear resistance, excellent elec. performance, and outstanding print quality.
 IT 881028-11-1P
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (charge transport material: electrophotog. imaging member containing)
 RN 881028-11-1 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[3-methyl-4-(triphenylmethyl)phenyl]-N,N'-bis[4-(triphenylmethyl)phenyl]- (9CI) (CA INDEX NAME)

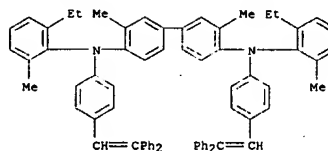


L30 ANSWER 14 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2006:91770 CAPLUS
 DOCUMENT NUMBER: 144:180713
 TITLE: Electrophotographic photoconductor for wet developing and image-forming apparatus for wet-developing
 INVENTOR(S): Azuma, Jun; Okada, Hideki
 PATENT ASSIGNEE(S): Kyocera Mita Corporation, Japan
 SOURCE: Eur. Pat. Appl., 69 pp.
 CODEN: EPKXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1621934	A2	20060201	EP 2005-254623	20050725
EP 1621934	A3	20060315		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				
JP 2006065278	A2	20060309	JP 2005-46467	20050223
US 2006024596	A1	20060202	US 2005-170493	20050629
CN 1728003	A	20060201	CN 2005-10088602	20050725
PRIORITY APPLN. INFO.:			JP 2004-218332	A 20040727

AB Provided are an electrophotog. photoconductor for wet developing excellent in solvent resistance having a photoconductor improved in not only solvent resistance but also charging characteristics even after long-term usage, and an image-forming apparatus equipped with such an electrophotog. photoconductor for wet developing. The electrophotog. photoconductor with an organic photoconductor contains at least a binder resin, a charge-generating agent, a hole-transfer agent, and an electron-transfer agent, where the amount of elution of the hole-transfer agent after 2,000-h-immersion in paraffin solvent having a kinematic viscosity (25°, in accordance with ASTM D455) of 1.4 to 1.8 mm²/s is 0.040 g/m² or less or the amount of elution of the electron-transfer agent after 2,000-h-immersion in paraffin solvent having a kinematic viscosity (25°, in accordance with ASTM D455) of 1.4 to 1.8 mm²/s is 0.12 g/m² or less.
 IT 874655-28-4
 RL: NUU (Other use, unclassified): USES (Uses)
 (electrophotog. photoconductor for wet developing and image-forming apparatus for wet-developing)
 RN 874655-28-4 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine,
 N,N'-bis[4-(2,2-diphenylethenyl)phenyl]-N,N'-bis(2-ethyl-6-methylphenyl)-3,3'-dimethyl- (9CI) (CA INDEX NAME)

L30 ANSWER 14 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



L30 ANSWER 15 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2006:34145 CAPLUS
 DOCUMENT NUMBER: 144:97663
 TITLE: Aminostilbenes showing good binder resin compatibility
 INVENTOR(S): Inagaki, Yoshio; Okada, Hideki; Ichiguchi, Tetsuya; Hamazaki, Kazuya; Kuboshima, Daisuke
 PATENT ASSIGNEE(S): Kyocera Mita Industrial Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 55 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

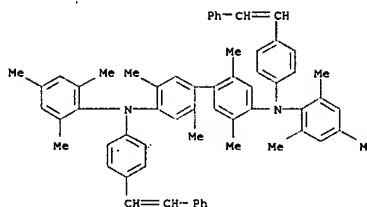
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006008670	A2	20060112	JP 2005-152208	20050525
PRIORITY APPLN. INFO.:			JP 2004-154729	A 20040525

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* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

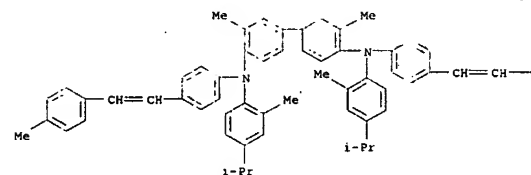
AB The aminostilbenes I (A, B, D, E, R1-R14 = H, halo, C1-20 alkyl, etc.; two of R2-R6 or two of R9-R13 form (condensed) carbon ring; Σ 2 of R9-R13 are substituents other than H; a-d = 0-4) are manufactured by Wittig reaction of formyltriphenylamines II (R1-R14, a-d = same as I) with ABCHP(O) (OEt)₂ (A, B = same as I) and DECHP(O) (OEt)₂ (D, E = same as I) in the presence of catalysts, or substitution of diphenylamines III with ICGH4-a(CH:CAB) (A, B = same as I) and ICGH4-a(CH:CDE) (D, E = same as I).
 IT 872454-47-2 872454-48-3 872454-50-7
 872454-51-8
 RL: DEV (Device component use); USES (Uses)
 (manufacture of aminostilbenes showing good binder resin compatibility and solvent solubility as hole transporting agents for electrophotog. photoconductors)
 RN 872454-47-2 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, 2,2',5,5'-tetramethyl-N,N'-bis[4-(2-phenylethenyl)phenyl]-N,N'-bis(2,4,6-trimethylphenyl)- (9CI) (CA INDEX NAME)

L30 ANSWER 15 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 872454-48-3 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-N,N'-bis[2-methyl-4-(1-methylethenyl)phenyl]-N,N'-bis[4-(2-(4-methylphenyl)ethenyl)phenyl]- (9CI) (CA INDEX NAME)

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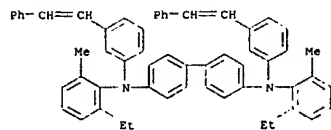


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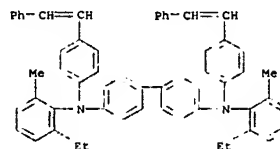
RN 872454-50-7 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(2-ethyl-6-methylphenyl)-N,N'-bis[3-(2-phenylethenyl)phenyl]- (9CI) (CA INDEX NAME)

L30 ANSWER 15 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

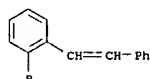
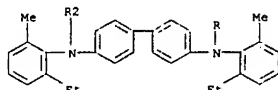


RN 872454-51-8 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine,
 N,N'-bis[2-ethyl-6-methylphenyl]-N,N'-bis[2-
 (2-phenylethenyl)phenyl]- (9CI) (CA INDEX NAME)

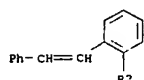
L30 ANSWER 15 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



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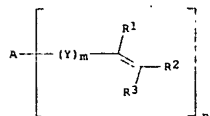
IT 850255-79-7P
 RL: DEV (Device component use); IMF (Industrial manufacture); PREP
 (Preparation); USES (Uses)
 (manufacture of aminostilbenes showing good binder resin
 compatibility and
 solvent solubility as hole transporting agents for electrophotog.
 photoconductors)
 RN 850255-79-7 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine,
 N,N'-bis[2-ethyl-6-methylphenyl]-N,N'-bis[4-

L30 ANSWER 16 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1306369 CAPLUS
 DOCUMENT NUMBER: 144:43205
 TITLE: Additive with charge-transporting group for
 electrophotographic photoreceptor, process cartridge,
 and apparatus
 INVENTOR(S): Nukada, Katsumi; Iwasaki, Masahiro
 PATENT ASSIGNEE(S): Fuji Xerox Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 62 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005346011	A2	20051215	JP 2004-169122	20040607
PRIORITY APPLN. INFO.:			JP 2004-169122	20040607

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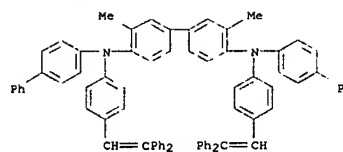


I

AB The additive is I (A = n-valent charge-transporting group; Y = divalent
 organic group; R1-3 = H, monovalent substituent; n = 0-1; m = 1-4; 21
 of R2-3 = C28 arylalkyl with alkylene, C28 organic group with
 perfluoroalkyl group, C28 alkyl, cycloalkyl, aralkyl, Si23
 siloxane). The photoreceptor comprises a support coated with
 photosensitive layers, in which the photosensitive layer furthest from
 the support contains I. The process cartridge and apparatus using the
 photoreceptor are also claimed. I shows good stability and compatibility
 with binders, the photoreceptor shows good surface lubricity and gives
 clear images without ghost.

IT 870778-76-0
 RL: DEV (Device component use); USES (Uses)
 (charge transporting agent: electrophotog. photoreceptor containing
 additive having charge-transporting group and ethylenic double bond)
 RN 870778-76-0 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine,
 N,N'-bis[1,1'-biphenyl]-4-yl-N,N'-bis[4-(2,2-
 diphenylethenyl)phenyl]-3,3'-dimethyl- (9CI) (CA INDEX NAME)

L30 ANSWER 16 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



L30 ANSWER 17 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1306156 CAPLUS
 DOCUMENT NUMBER: 144:43203
 TITLE: Electrophotographic photoreceptor using anodized aluminum cylinder, process cartridge, and image-forming apparatus
 INVENTOR(S): Daichi, Atsushi; Kikuchi, Norihiro
 PATENT ASSIGNEE(S): Canon Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005345781	A2	20051215	JP 2004-165658	20040603
PRIORITY APPLN. INFO.: JP 2004-165658 20040603				

AB The photoreceptor has a light-sensitive layer on the elec. conducting anodized aluminum cylinder support, in which the uppermost layer contains a compound obtained by polymerizing or crosslinking a compound having 21 chain-polymerizable functional group in a mol. The process cartridge removably incorporated in the apparatus, involves the obtained

photoreceptor and 21 of charging, developing, and cleaning devices. The apparatus contains the photoreceptor and charging, imagewise exposing, developing, and transferring devices. The photoreceptor shows improved mech.

strength and without deterioration by electron beam.

IT 870676-18-9P

RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)

(charge-transporting agent; electrophotog. photoreceptor using anodized aluminum cylinder and having uppermost layer containing polymer polymerized by electron beam)

RN 870676-18-9 CAPLUS

CN 2-Propenoic acid, 2-methyl-, [4-[[4'-[[4-(4-

ethenylphenyl)butyl]phenyl][4-[[[1-oxo-2-propenyl]oxy]methyl]phenyl]amino]

[1,1'-biphenyl]-4-yl][4-[4-[[[1-oxo-2-propenyl]oxy]methyl]phenyl]butyl]phenyl]amino]phenyl]methyl ester, homopolymer (9CI) (CA INDEX NAME)

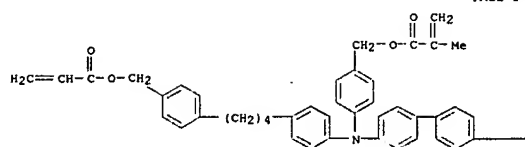
CM 1

CRN 870676-17-8

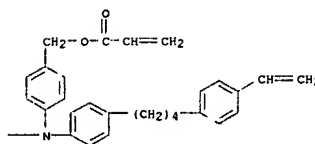
CMF C71 H68 N2 O6

L30 ANSWER 17 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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L30 ANSWER 18 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1245488 CAPLUS
 DOCUMENT NUMBER: 144:378543
 TITLE: Electroluminescence of polymer/small-molecules heterostructure doped light-emitting diodes and their emission mechanism
 AUTHOR(S): Nie, Hai; Zhang, Bo; Tang, Xianzhong; Li, Yuanxun
 CORPORATE SOURCE: School of Microelectronics and Solid-State Electronics, University of Electronic Science and Technology of China, Chengdu, 610054, Peop. Rep.

China
 SOURCE: Bandaoti Xuebao (2005), 26(9), 1778-1782
 CODEN: PTPDZ; ISSN: 0253-4177

PUBLISHER: Zhongguo Dianzi Xuehui

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

AB Polymer/small-mol. heterostructure doped LEDs are fabricated using a novel

PTPD (poly-TPD) as hole transport material and the highly fluorescent rubrene as dopant. The basic structure of the heterostructure is PTPD/Alq3. With the doping of both layers, the EL quantum efficiencies are approx. twice greater than that of the undoped device. Compared with the undoped device and conventional TPD/Alq3 diode, the stability of the doping device is significantly improved. Based on their EL spectra, the emission mechanisms for doped device are results of together carrier trapping and Forster energy transfer processes.

IT 404589-25-9

RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process); USES (Uses)

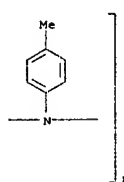
(electroluminescence and emission mechanism of LEDs with heterostructure of small mols. and)

RN 404589-25-9 CAPLUS

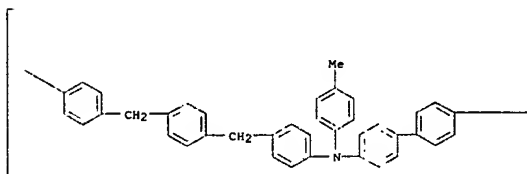
CN Poly[[4-(4-methylphenyl)imino][1,1'-biphenyl]-4,4'-diyl][4-methylphenyl]imino-1,4-phenylenemethylene-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

L30 ANSWER 18 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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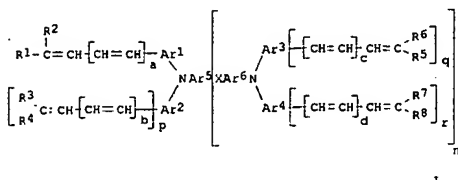


L30 ANSWER 19 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2005:1074647 CAPLUS
 DOCUMENT NUMBER: 143:356576
 TITLE: Electrophotographic photoreceptor containing hydroxygalliumphthalocyanine and arylamine compound

in photosensitive layer, electrophotographic apparatus, and process cartridge
 INVENTOR(S): Iwasaki, Masahiro; Nukada, Katsumi; Hongo, Kazuya
 PATENT ASSIGNEE(S): Fuji Xerox Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 41 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005274765	A2	20051006	JP 2004-85445	20040323
PRIORITY APPLN. INFO.:			JP 2004-85445	20040323

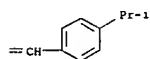
OTHER SOURCE(S): MARPAT 143:356576
 GI



AB Disclosed is an electrophotog. photoreceptor comprising hydroxygalliumphthalocyanine having a spectral absorption peak in 810-839 nm and an arylamine compound I (R1-8 = H, alkyl, cycloalkyl, etc.; Ar1-6 = arylene, heterocyclyl, etc.; a-d = 0-4; p, q, r = 0, 1; k = 0, 1; and X = single bond, divalent organic group) in a photosensitive layer formed on an elec. conductive support.
 IT 839682-92-7 839682-93-8
 RL: DEV (Device component use); USES (Uses)
 and (Electrophotog. photoreceptor containing hydroxygalliumphthalocyanine arylamine compound in photosensitive layer)
 RN 839682-92-7 CAPLUS

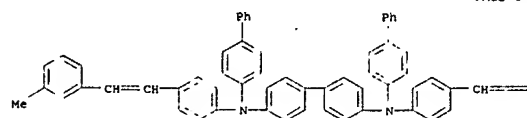
L30 ANSWER 19 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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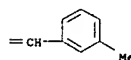


L30 ANSWER 19 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 CN [1,1'-Biphenyl]-4,4'-diamine,
 N,N'-bis([1,1'-biphenyl]-4-yl)-N,N'-bis[4-(2-(3-methylphenyl)ethenyl)phenyl]- (9CI) (CA INDEX NAME)

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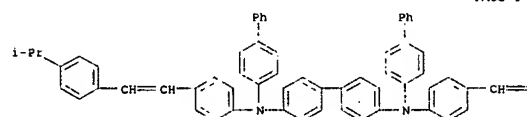


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RN 839682-93-8 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine,
 N,N'-bis([1,1'-biphenyl]-4-yl)-N,N'-bis[4-(2-(4-(1-methylethyl)phenyl)ethenyl)phenyl]- (9CI) (CA INDEX NAME)

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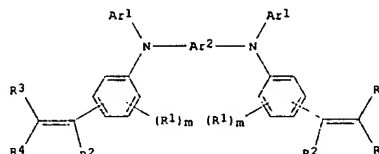
L30 ANSWER 20 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2005:1049310 CAPLUS
 DOCUMENT NUMBER: 143:356773
 TITLE: Organic electroluminescent display devices containing arylamine

INVENTOR(S): Iwasaki, Masahiro; Nukada, Katsumi
 PATENT ASSIGNEE(S): Fuji Xerox Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 36 pp.
 CODEN: JKKXAF

DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005268133	A2	20050929	JP 2004-81229	20040319
PRIORITY APPLN. INFO.:			JP 2004-81229	20040319

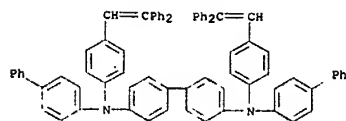
OTHER SOURCE(S): MARPAT 143:356773
 GI



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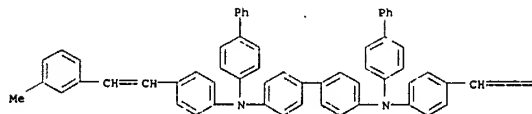
AB The title device has an organic phosphor layer between a pair of electrodes, wherein the organic layer contains aryl amine I (Ar1 = -R5-COO-R6; R5 = Cl-4 alkylene; R6 = Cl-4 alkyl; Ar2 = arylene; R1 = halo, alkoxy, alkyl; R2 = alkyl, aryl; R3-4 = alkyl, aryl; m = integer 0-4). The device is high stable in the operation and shows good storageability.
 IT 921774-07-6P 839682-92-7P 839682-93-8P
 RL: SPH (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (arylamine in organic electroluminescent display devices)
 RN 821774-07-6 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis([1,1'-biphenyl]-4-yl)-N,N'-bis[4-(2,2-diphenylethenyl)phenyl]- (9CI) (CA INDEX NAME)

L30 ANSWER 20 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

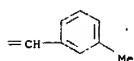


RN 839682-92-7 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine,
 N,N'-bis([1,1'-biphenyl]-4-yl)-N,N'-bis[4-(2-
 (3-methylphenyl)ethenyl)phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



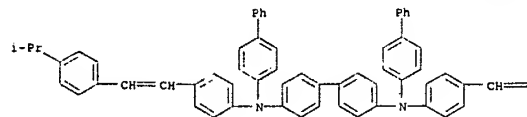
PAGE 1-B



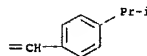
RN 839682-93-8 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine,
 N,N'-bis([1,1'-biphenyl]-4-yl)-N,N'-bis[4-(2-
 (4-(1-methylethyl)phenyl)ethenyl)phenyl]- (9CI) (CA INDEX NAME)

L30 ANSWER 20 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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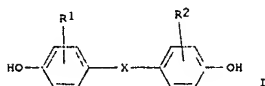
PAGE 1-B



L30 ANSWER 21 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2005:1049197 CAPLUS
 DOCUMENT NUMBER: 143:356557
 TITLE: Electrophotographic photoreceptor for wet development
 and electrophotographic imaging device
 Azuma, Jun; Okada, Hideki
 INVENTOR(S): Kyocera Mita Industrial Co., Ltd., Japan
 PATENT ASSIGNEE(S): Jpn. Kokai Tokkyo Koho, 54 pp.
 SOURCE: CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005266759	A2	20050929	JP 2004-297713	20041012
PRIORITY APPLN. INFO.:			JP 2004-40323	A 20040217

GI



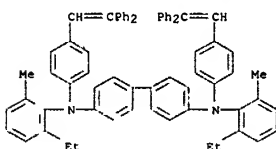
AB Title electrophotog. photoreceptor has a photosensitive layer comprising
 a binder resin, a pos. hole-transporting agent, and a charge generator and
 is characterized in that the binder resin is a polycarbonate based on
 bisphenol derivative I (X = O, hydrocarbylene, carbonyl; R1, R2 = H,
 alkyl).

IT 865787-28-6

RL: TEM (Technical or engineered material use); USES (Uses)
 (electrophotog. photoreceptor for wet development and electrophotog.
 imaging device)

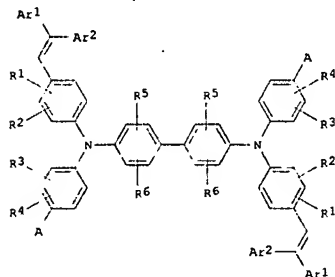
RN 865787-28-6 CAPLUS

CN [1,1'-Biphenyl]-4,4'-diamine,
 N,N'-bis[4-(2,2-diphenylethenyl)phenyl]-N,N'-
 bis(2-ethyl-6-methylphenyl)- (9CI) (CA INDEX NAME)



L30 ANSWER 22 OF 143 CAPLUS COPYRIGHT 2006 ACS on STM
 ACCESSION NUMBER: 2005:1048716 CAPLUS
 DOCUMENT NUMBER: 143:356522
 TITLE: Aminostilbene derivatives and electrophotographic photoreceptors containing them
 INVENTOR(S): Inagaki, Yoshio
 PATENT ASSIGNEE(S): Kyocera Mita Industrial Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 37 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005263732	A2	20050929	JP 2004-80785	20040319
PRIORITY APPLN. INFO.: JP 2004-80785 20040319				
OTHER SOURCE(S): MARPAT 143:356522				
GI				



AB The derivs. are represented by I [A = (un)substituted N-containing organic group;
 R1-R6 = H, halo, (un)substituted C1-20 (halo)alkyl, C6-12 aryl, C1-20 alkoxy, C7-11 aralkyl, C3-10 cycloalkyl, amino; Ar1-Ar2 = (un)substituted C6-30 aryl]. Also claimed are electrophotog. photoreceptors having a photosensitive layer containing I. The photoreceptors containing I as

L30 ANSWER 23 OF 143 CAPLUS COPYRIGHT 2006 ACS on STM
 ACCESSION NUMBER: 2005:1045056 CAPLUS
 DOCUMENT NUMBER: 143:315440
 TITLE: Diphenylenediaminedistilbenes, their manufacture, and electrophotographic photoconductors using them
 INVENTOR(S): Inagaki, Yoshio
 PATENT ASSIGNEE(S): Kyocera Mita Industrial Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 36 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005263735	A2	20050929	JP 2004-81140	20040319
PRIORITY APPLN. INFO.: JP 2004-81140 20040319				
OTHER SOURCE(S): MARPAT 143:315440				
GI				

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

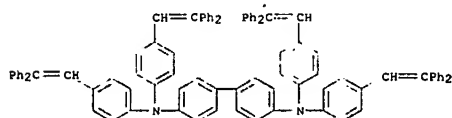
AB Diphenylenediaminedistilbenes I (R1-R8 = H, halo, C1-20 alkyl, etc.; Ar1, Ar2 = C6-30 aryl; m = 1-3), useful as hole transporting agents, are manufactured by Wittig reaction of formyltriphenylamines II (R1-R8, Ar1,

Ar2 = same as above) with R5R6C6H3(CH:CH)m-1CH2P(O)(OEt)2 in the presence of NaOMe catalyst. The I show good compatibility with binder resins.

IT 198903-56-92
 RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
 (manufacture of diphenylenediaminedistilbenes as hole transporting agents

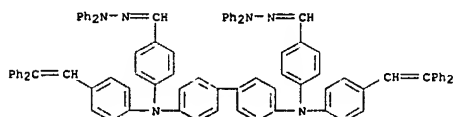
showing good compatibility with binder resins for electrophotog. photoconductors)

RN 198903-56-9 CAPLUS
 CN (1,1'-Biphenyl)-4,4'-diamine, N,N,N',N'-tetraakis[4-(2,2-diphenylethenyl)phenyl]- (9CI) (CA INDEX NAME)

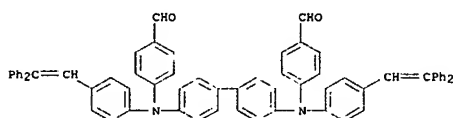


IT 864738-43-2P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation);
 RACT (Reactant or reagent)
 (manufacture of diphenylenediaminedistilbenes as hole transporting agents

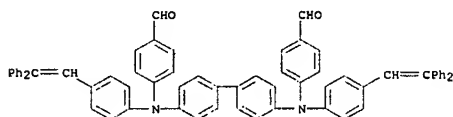
L30 ANSWER 22 OF 143 CAPLUS COPYRIGHT 2006 ACS on STM (Continued)
 charge-transporting agents show good sensitivity and solvent resistance.
 IT 865475-56-5P
 RL: DEV (Device component use); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (preparation of aminostilbene derivs. and electrophotog. photoreceptors containing them)
 RN 865475-56-5 CAPLUS
 CN Benzaldehyde, 4,4'-[1,1'-biphenyl]-4,4'-diylbis[4-(2,2-diphenylethenyl)phenyl]imino]bis- (9CI) (CA INDEX NAME)



IT 864738-43-2P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of aminostilbene derivs. and electrophotog. photoreceptors containing them)
 RN 864738-43-2 CAPLUS
 CN Benzaldehyde, 4,4'-[1,1'-biphenyl]-4,4'-diylbis[4-(2,2-diphenylethenyl)phenyl]imino]bis- (9CI) (CA INDEX NAME)



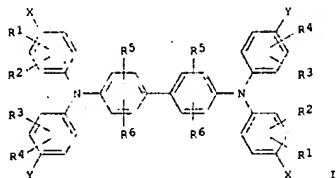
L30 ANSWER 23 OF 143 CAPLUS COPYRIGHT 2006 ACS on STM (Continued)
 showing good compatibility with binder resins for electrophotog. photoconductors)
 RN 864738-43-2 CAPLUS
 CN Benzaldehyde, 4,4'-[1,1'-biphenyl]-4,4'-diylbis[4-(2,2-diphenylethenyl)phenyl]imino]bis- (9CI) (CA INDEX NAME)



L30 ANSWER 24 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2005:1045051 CAPLUS
 DOCUMENT NUMBER: 143:356512
 TITLE: Aminostilbene derivatives, their preparation, and electrophotographic photoreceptors containing them
 INVENTOR(S): Inagaki, Yoshio
 PATENT ASSIGNEE(S): Kyocera Mita Industrial Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 37 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005263724	A2	20050929	JP 2004-80440	20040319
PRIORITY APPLN. INFO.:			JP 2004-80440	20040319

OTHER SOURCE(S): MARPAT 143:356512
 GI



AB The derivs. I [X, Y = CH:CAr1Ar2; R1-R6 = H, halo, (un)substituted C1-20 (halo)alkyl, C6-12 aryl, C1-20 alkoxy, C7-31 aralkyl, C3-10 cycloalkyl, amino; Ar1-Ar6 = C6-30 (un)substituted aryl] (II) are prepared by (1) Wittig reaction of I (X = CHO; Y = H; R1-R6 = same as above) with Ar1Ar2CHP(O)(OEt)2 (Ar1, Ar2 = same as above) in the presence of BuLi and THF, (2) Vilsmeier reaction of the resulting I (X = CH:CAr1Ar2; Y = H; R1-R6, Ar1, Ar2 = same as above) in the presence of POCl3 and DMF, and (3) Wittig reaction of the resulting I (X = CH:CAr1Ar2; Y = CHO; R1-R6, Ar1, Ar2 = same as above) with Ar3Ar4CHP(O)(OEt)2 in the presence of BuLi and THF. Also claimed are electrophotog. photoreceptors having a photosensitive layer containing II. The photoreceptors containing II as charge-transporting agents show good sensitivity and durability.
 IT 198903-56-9P
 RL: DEV (Device component use); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

L30 ANSWER 25 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2005:822648 CAPLUS
 DOCUMENT NUMBER: 143:202915
 TITLE: Electrophotographic photoreceptor,
 electrophotographic
 INVENTOR(S): apparatus and method, and process cartridges for it
 PATENT ASSIGNEE(S): Sakimura, Tomoko; Shibata, Toyoko; Asano, Masao
 SOURCE: Konica Minolta Business Technologies, Inc., Japan
 Jpn. Kokai Tokkyo Koho, 92 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

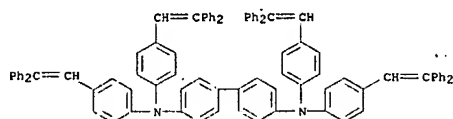
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005221539	A2	20050818	JP 2004-26511	20040203
PRIORITY APPLN. INFO.:			JP 2004-26511	20040203

OTHER SOURCE(S): MARPAT 143:202915

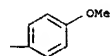
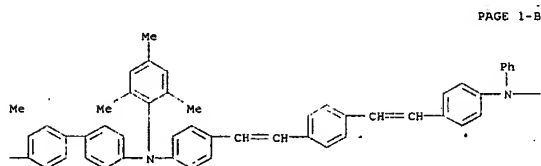
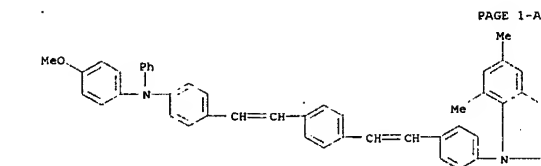
AB The photoreceptor comprises a perylene pigment as a charge-generating agents, and compound mixts. having structure of X-(CTM)n-Y (CTM = charge-transport group; X, Y = H, halo, monovalent organic group; n = 0-10; n = 1-10 when X = Y = H or halo) as charge-transporting agents. Preferably, the sum of the most- and the next compds. occupy ≤99% to the total. compound mixts. Also claimed are electrophotog. apparatus, electrophotog. and its process cartridge employing the compound mixts. The photoreceptor shows high and durability sensitivity and electrostatically charging performance even under high-speed electrophotog. conditions or low-temperature low-humidity environment.

IT 862109-19-1 862109-20-4 862109-21-5
 862109-22-6
 RL: DEV (Device component use); USES (Uses)
 (charge-transport agent; electrophotog. photoreceptor containing charge-transport agent mixture, electrophotog. apparatus, and process cartridge)
 RN 862109-19-1 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-[2-[4-[2-[4-(4-methoxyphenyl)phenylamino]phenyl]ethenyl]phenyl]phenyl]-N,N'-bis(2,4,6-trimethylphenyl)- (9CI) (CA INDEX NAME)

L30 ANSWER 24 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 (prepn. of aminostilbene derivs. from
 bis(formyldiphenylamino)biphenyls
 by Wittig reaction and Vilsmeier reaction and electrophotog.
 photoreceptors contg. them)
 RN: 198903-56-9 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N,N',N'-tetrakis[4-(2,2-diphenylethenyl)phenyl]- (9CI) (CA INDEX NAME)



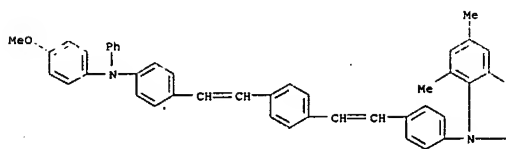
L30 ANSWER 25 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



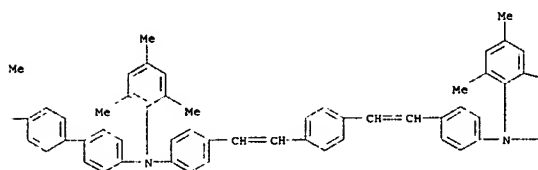
RN 862109-20-4 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-[1,4-phenylenebis(2,1-ethenediyl)-4,1-phenylene]bis[N'-(4-[2-[4-[2-[4-(4-methoxyphenyl)phenylamino]phenyl]ethenyl]phenyl]phenyl]-N,N'-bis(2,4,6-trimethylphenyl)- (9CI) (CA INDEX NAME)

L30 ANSWER 25 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

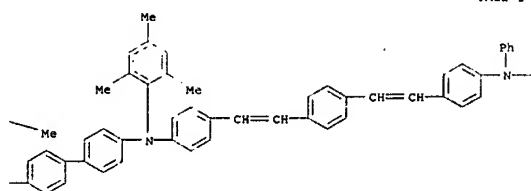
PAGE 1-A



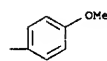
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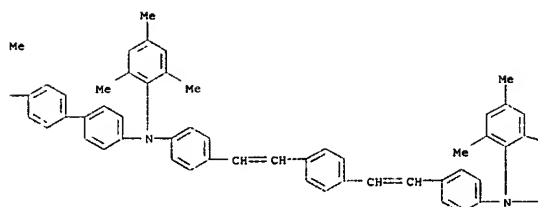
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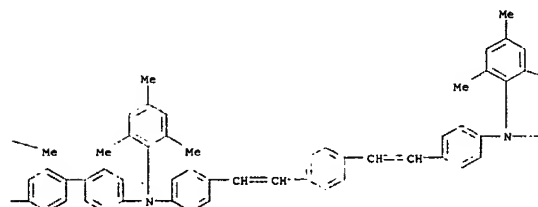
FN 862109-21-5 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine,
 N,N'-bis[4-[2-[4-[2-[4-[4'-[1-[4-[2-[4-[2-[4-
 [(4-methoxyphenyl)phenylamino]phenyl]ethenyl]phenyl]ethenyl]phenyl] (2,4,6-
 trimethylphenyl)amino] [1,1'-biphenyl]-4-yl)] (2,4,6-
 trimethylphenyl)amino]phenyl]ethenyl]phenyl]ethenyl]phenyl]-N,N'-bis (2,4,6-
 trimethylphenyl)- (9CI) (CA INDEX NAME)

L30 ANSWER 25 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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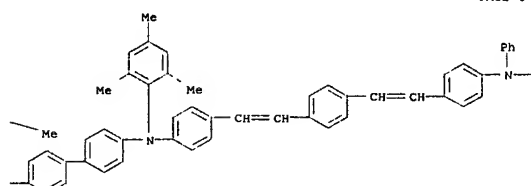


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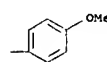


L30 ANSWER 25 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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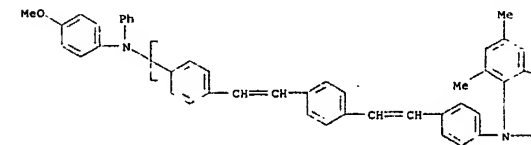


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RN      862109-22-6 CAPLUS
CN      FCyl[[4,6-methoxyphenyl]imino][1,1'-biphenyl]-4,4'-diyl[[2,4,6-
        triethylphenyl]imino]-1,4-phenylene-1,2-ethenediyl-1,4-phenylene-1,2-
        ethenediyl-1,4-phenylene], a-[4-[2-[4-[2-[4-[4-
        methoxyphenyl]phenylamino]phenyl]ethenyl]phenyl]ethenyl]phenyl]-a-
        [(4-methoxyphenyl)phenylamino]- (9CI) (CA INDEX NAME)

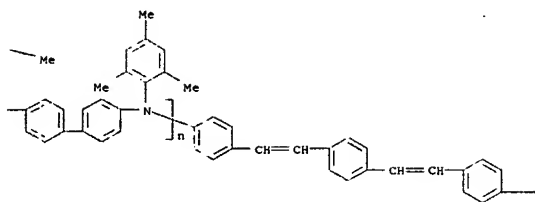
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PAGE 1-A

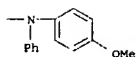


L30 ANSWER 25 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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L30 ANSWER 26 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

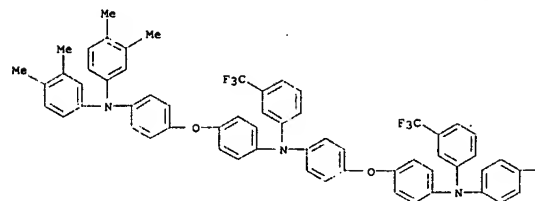
ACCESSION NUMBER: 2005:693800 CAPLUS
 DOCUMENT NUMBER: 143:163053
 TITLE: Electrophotographic photoreceptors with good crack resistance, process cartridges, and electrophotographic apparatus
 INVENTOR(S): Ishizuka, Yuka; Tanaka, Takakazu; Ogaki, Harunobu; Kako, Kenichi
 PATENT ASSIGNEE(S): Canon Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 50 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005208110	A2	20050804	JP 2004-11684	20040120
PRIORITY APPLN. INFO.:			JP 2004-11684	20040120

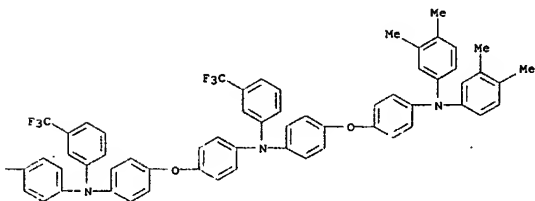
OTHER SOURCE(S): MARPAT 143:163053
 AB The photoreceptors have photosensitive layers containing binder polymers, (A) charge transport materials with mol. weight 300-700, and (B) charge transport materials with mol. weight 1500-4000 having specific aromatic polyamine structures on supports. The electrophotog. apparatus gives stable high-quality images.
 IT 860310-00-5
 RL: DEV (Device component use); USES (Uses)
 (electrophotog. photoreceptors with good crack resistance)
 RN 860310-00-5 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-[4-[[4-[bis(3,4-dimethylphenyl)amino]phenoxy]phenyl][3-(trifluoromethyl)phenyl]amino]phenoxy]phenyl]-N,N'-bis[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

L30 ANSWER 26 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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L30 ANSWER 27 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

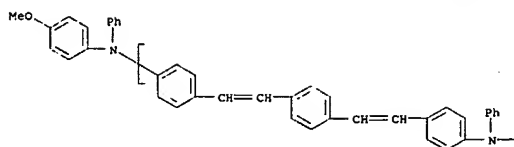
ACCESSION NUMBER: 2005:587907 CAPLUS
 DOCUMENT NUMBER: 143:106317
 TITLE: Electrophotographic photoreceptors with stable chargeability and sensitivity, process cartridges having them, and method and apparatus for image formation using them
 INVENTOR(S): Sakimura, Tomoko; Shibata, Toyoko; Asano, Masao; Yamazaki, Hiroshi
 PATENT ASSIGNEE(S): Konica Minolta Business Technologies, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 90 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005181679	A2	20050707	JP 2003-422450	20031219
PRIORITY APPLN. INFO.:			JP 2003-422450	20031219

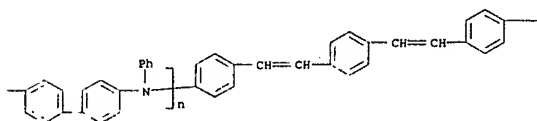
OTHER SOURCE(S): MARPAT 143:106317
 AB The photoreceptors contain (A) oxyltanylpthalocyanine pigments having the maximum peak at Bragg angle (2θ: 40.2°) 27.3° in x-ray diffraction spectra by Cu-Kα fluorescent x-ray (wavelength = 0.1541 nm) and (B) mixts. of X(CTM)nY (CTM = charge-transporting group; X, Y = H, halo, monovalent organic group; n = 0-10; n = 1-10 when X = Y = H or X = Y = halo) having distribution based on n, wherein the sum of the compositional ratio of X(CTM)nY with maximum content (for a certain n) and that of X(CTM)nY with 2nd maximum content is ≤99%.
 IT 767336-18-5P
 RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
 (charge transporting polyamines for electrophotog. photoreceptors with stable chargeability and sensitivity)
 RN 767336-18-5 CAPLUS
 CN Poly[(phenylimino)[1,1'-biphenyl]-4,4'-diyl(phenylimino)-1,4-phenylene-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl-1,4-phenylene], α-[4-[2-[4-[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]phenyl]ethenyl]phenyl]-ω-[4-methoxyphenyl]phenylamino]- (9CI) (CA INDEX NAME)

L30 ANSWER 27 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

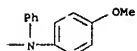
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L30 ANSWER 28 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

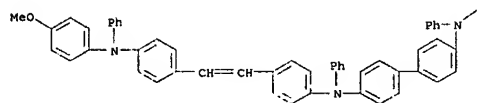
ACCESSION NUMBER: 2005:522620 CAPLUS
 DOCUMENT NUMBER: 143:35110
 TITLE: Electrophotographic apparatus, photoreceptors therefor, process cartridges therewith, and method for forming images with high density and resolution thereby
 INVENTOR(S): Shibata, Toyoko; Sakimura, Tomoko; Asano, Masao
 PATENT ASSIGNEE(S): Konica Minolta Business Technologies, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 92 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005156799	A2	20050616	JP 2003-393571	20031125
PRIORITY APPLN. INFO.:			JP 2003-393571	20031125

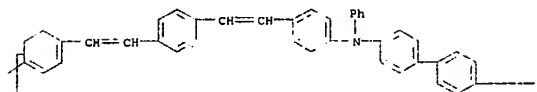
OTHER SOURCE(S): MARPAT 143:35110
 AB The photoreceptors contain (A) pigments based on metal-free condensed polycyclic compds. (e.g., perylenes) and containing metal atoms (e.g., Ti, Cu, Fe) and (B) mixts. of X(CTM)nY (CTM = electron-transporting group; X, Y = H, halo, monovalent organic group; n = 0-10; with the proviso that when X = Y = H or halo, n = 1-10) with x + y \leq 99% (x, y = concentration of the maximum and the second maximum component, resp.). Also claimed are photoreceptors having A-containing charge-generating layers and B-containing charge-transporting layers. In process cartridges, the photoreceptors are held together with chargers, imagers, developers, transfer means, charge removers, and/or cleaning means.
 IT 851957-21-6
 RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
 (oligomers, charge transporters; electrophotog. photoreceptors having charge-transporting oligomers and metal-containing condensed polycyclic pigments for forming high-resolution images)
 RN 851957-21-6 CAPLUS
 CN
 Poly[(phenylimino)[1,1'-biphenyl]-4,4'-diyl(phenylimino)-1,4-phenylene-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl-1,4-phenylene],
 u-[4-[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]phenyl]-
 u-[4'-[4-[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]phenyl]
]phenylamino][1,1'-biphenyl]-4-yl]phenylamino]- (SCI) (CA INDEX NAME)

L30 ANSWER 28 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

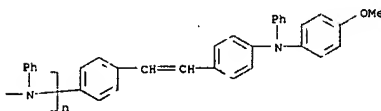
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L30 ANSWER 29 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

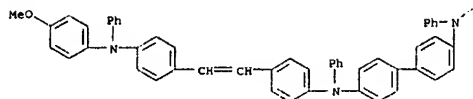
ACCESSION NUMBER: 2005:522619 CAPLUS
 DOCUMENT NUMBER: 143:35109
 TITLE: Electrophotographic apparatus, photoreceptors therefor, process cartridges therewith, and method for forming images with high density and resolution thereby
 INVENTOR(S): Shibata, Toyoko; Sakimura, Tomoko; Asano, Masao
 PATENT ASSIGNEE(S): Konica Minolta Business Technologies, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 90 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005156798	A2	20050616	JP 2003-393570	20031125
PRIORITY APPLN. INFO.:			JP 2003-393570	20031125

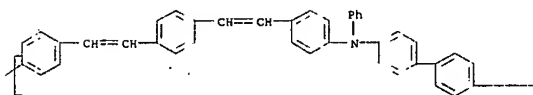
OTHER SOURCE(S): MARPAT 143:35109
 AB The photoreceptors contain adducts of Ti phthalocyanines and 1,2-glycols and mixts. of X(CTM)nY (CTM = electron-transporting group; X, Y = H, halo, monovalent organic group; n = 0-10; with the proviso that when X = Y = H or halo, n = 1-10) with x + y \leq 99% (x, y = concentration of the maximum and the 2nd maximum component, resp.). Also claimed are photoreceptors having charge-generating layers containing the adducts and charge-transporting layers containing the mixts. In process cartridges, the photoreceptors are held together with chargers, imagers, developers, transfer means, charge removers, and/or cleaning means.
 IT 851957-21-6
 RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
 (oligomers, charge transporters; electrophotog. photoreceptors containing charge-transporting oligomers and titanyl phthalocyanine-u-glycol adducts for forming high-resolution images)
 RN 851957-21-6 CAPLUS
 CN
 Poly[(phenylimino)[1,1'-biphenyl]-4,4'-diyl(phenylimino)-1,4-phenylene-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl-1,4-phenylene],
 u-[4-[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]phenyl]-
 u-[4'-[4-[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]phenyl]
]phenylamino][1,1'-biphenyl]-4-yl]phenylamino]- (SCI) (CA INDEX NAME)

L30 ANSWER 29 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

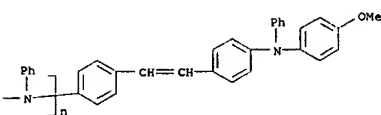
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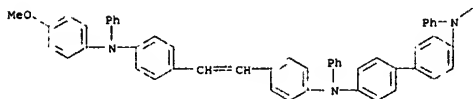


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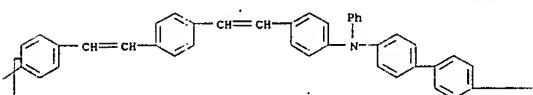


L30 ANSWER 30 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

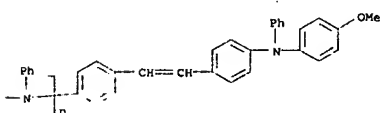
PAGE 1-A



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L30 ANSWER 30 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2005:522618 CAPLUS
 DOCUMENT NUMBER: 143:35108
 TITLE: Electrophotographic apparatus, photoreceptors therefor, process cartridges therewith, and method for forming images with high density and resolution thereby
 INVENTOR(S): Sakimura, Tomoko; Shibata, Toyoko; Asano, Masao; Yamazaki, Hiroshi
 PATENT ASSIGNEE(S): Konica Minolta Business Technologies, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 83 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

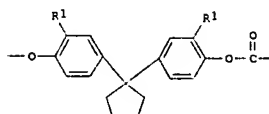
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005156797	A2	20050616	JP 2003-393569	20031125
PRIORITY APPLN. INFO.:			JP 2003-393569	20031125

OTHER SOURCE(S): MARPAT 143:35108
 AB The photoreceptors contain Ga phthalocyanine pigments and mixts. of X(CTM)nY (CTM = electron-transporting group; X, Y = H, halo, monovalent organic group; n = 0-10; with the proviso that when X = Y = H or halo, n = 1-10) with x + y ≤ 99% (x, y = concentration of the maximum and the 2nd maximum component, resp.). Also claimed are photoreceptors having charge-generating layers containing the pigments and charge-transporting layers containing the mixts. In process cartridges, the photoreceptors are held together with chargers, imagers, developers, transfer means, charge removers, and/or cleaning means.
 IT RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
 (oligomers, charge transporters; electrophotog. photoreceptors having charge-transporting oligomers and gallium phthalocyanine pigments for forming high-resolution images)
 RN 851957-21-6 CAPLUS
 CN Poly[(phenylimino)[1,1'-biphenyl]-4,4'-diyl(phenylimino)-1,4-phenylene-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl-1,4-phenylene],
 α-[4-[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]phenyl]-
 ω-[4'-[4-[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]phenyl]
 [phenylamino][1,1'-biphenyl]-4-yl]phenylamino)- (9CI) (CA INDEX NAME)

L30 ANSWER 31 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2005:471454 CAPLUS
 DOCUMENT NUMBER: 143:16457
 TITLE: Electrophotographic apparatus and wear- and gas-resistant photoreceptors therefor
 INVENTOR(S): Azuma, Jun; Watanabe, Yukimasa; Yashima, Ayako; Morishita, Hiromobu; Hikosaka, Takaaki
 PATENT ASSIGNEE(S): Kyocera Mita Industrial Co., Ltd.; Idemitsu Kosan Co., Ltd.
 SOURCE: Jpn. Kokai Tokkyo Koho, 48 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

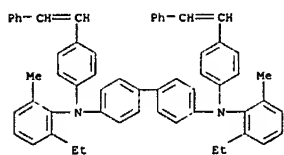
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005141064	A2	20050602	JP 2003-378393	20031107
PRIORITY APPLN. INFO.:			JP 2003-378393	20031107

OTHER SOURCE(S): MARPAT 143:16457
 GI



AB The photoreceptors have, on supports, photosensitive layers containing charge generators, triarylamino-styryl group-containing hole transporters, and binders having I units (R1 = H, alkyl). The photoreceptors may contain electron transporters (e.g., diphenylquinones, stilbenequinones, (di)naphthoquinones, azoquinones, silacyclopentadienes, naphthalenetetracarboxylic acid imides) in the same layers with the charge generators. In electrophotog. apparatus, chargers, exposers, developers, and transfer means are disposed in this order along driving direction of the photoreceptors.
 IT RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
 (hole transporters; electrophotog. photoreceptors containing triarylamino-styryl-containing hole transporters and cardo polycarbonate binders and showing good wear and gas resistance)
 RN 850255-79-7 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine,
 N,N'-bis[2-ethyl-6-methylphenyl]-N,N'-bis[4-(2-phenylethenyl)phenyl]- (9CI) (CA INDEX NAME)

L30 ANSWER 31 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



L30 ANSWER 32 OF 143 CAPLUS COPYRIGHT 2006 ACS ON STN
 ACCESSION NUMBER: 2005:450059 CAPLUS
 DOCUMENT NUMBER: 142:490352
 TITLE: Electrophotographic apparatus, photoreceptors
 therefor, process cartridges therewith, and method
 for forming high-quality sharp images thereby
 INVENTOR(S): Sakimura, Tomoko; Shibata, Toyoko
 PATENT ASSIGNEE(S): Konica Minolta Business Technologies, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 90 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005134709	A2	20050526	JP 2003-371847	20031031
PRIORITY APPLN. INFO.:			JP 2003-371847	20031031

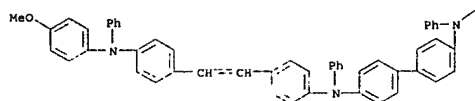
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OTHER SOURCE(S):          MARPAT 142:490352
AB  The photoconductors contain X(CTM)n mixts. (CTM = charge-transferring
    group; X, Y = H, halo, monovalent organic group; n = 0-10; with the
    proviso
    that when X = Y = H, n = 1-10) With x + y ≤ 99% (x, y = concentration of
    the maximum and the 2nd maximum components, resp.). In photoconductors
    having:
    (A) charge-generating layers and (B) charge-transferring layers in this
    order on conductive supports, the above mixts. and monodisperse charge
    transporters are contained in one and other layers in B, resp. In
    process
    cartridges, the photoconductors are held together with chargers, imagers,
    developers, transfer means, charge removers, and/or cleaning means.
IT  851957-21-6
    RL: DEV (Device component use); TEM (Technical or engineered material
    use); USES (Uses)
        (oligomers, charge transporters; electrophotog. photoconductors having
        charge-transferring oligomers and substances in different layers for
        forming high-quality sharp images)
RN  851957-21-6  CAPIUS
CN
Poly[ (phenylimino)[1,1'-biphenyl]-4, 4'-diyl (phenylimino)-1,4-phenylene-1,2-
ethenediyl-1,4-phenylene-1,2-ethenediyl-1,4-phenylene],
a-[4-[2,4-[4-(4-methoxyphenyl)phenylimino]phenyl]ethenyl]phenyl-
=4'--[4-[2,4-[4-(4-methoxyphenyl)phenylimino]phenyl]ethenyl]phenyl]
[phenylimino][1,1'-biphenyl]-4-yl]phenylimino]. [9C] [CA INDEX NAME]

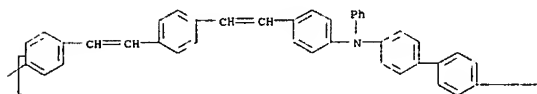
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L30 ANSWER 32 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

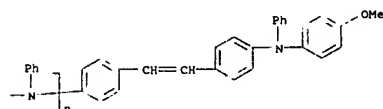
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L30 ANSWER 33 OF 143 CAPLUS COPYRIGHT 2006 ACS ON STN
 ACCESSION NUMBER: 2005:450047 CAPLUS
 DOCUMENT NUMBER: 142:490348
 TITLE: Electrophotographic apparatus, photoreceptors
 therefor, process cartridges therewith, and method
 for forming high-quality sharp images thereby
 INVENTOR(S): Sakimura, Tomoko; Shibata, Toyoko
 PATENT ASSIGNEE(S): Konica Minolta Business Technologies, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 79 pp.
 CODEN: JKKKAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005134607	A2	20050526	JP 2003-370109	20031030
PRIORITY APPL. INFO.:			JP 2003-370109	20031030

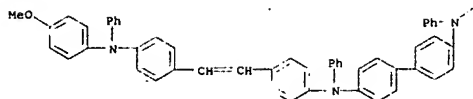
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OTHER SOURCE(S): MARPAT 142:490348
AB The photoceptors contain (A) X(CTM)nY mixts. (CTM = charge-transporting
group; X, Y = H, halo, monovalent organic group; n = 0-10; with the
proviso
that when X = Y = H, n = 1-10) with mol. weight  $\geq 1000$ -fraction 10-90%.
Also claimed are photoceptors having charge-generating layers on
conductive supports and A-containing charge-transporting layers thereon.
In process cartridges, the photoceptors are held together with chargers,
imagers, developers, transfer means, charge removers, and/or cleaning
means.
IT 851957-21-6
RL: DEV (Device component use); TEM (Technical or engineered material
use); USES (Uses)
(oligomers, charge transporters; electrophotog. photoceptors having
charge-transporting oligomers for forming high-quality sharp images)
RN 851957-21-6 CAPLUS
CN
Poly[phenylimino][1,1'-biphenyl]-4,4'-diyl(phenylimino)-1,4-phenylene-1,2-
ethenediyl-1,4-phenylene-1,2-ethenediyl-1,4-phenylene,
-1,2-[4-(4-methoxyphenyl)phenylimino]phenylmethylethynylphenyl-
-1,2-[4-(4-methoxyphenyl)phenylimino]phenylmethylethynylphenyl
phenylimino][1,1'-biphenyl]-4,4'-diylphenylamino]- (9C1) (CA INDEX NAME)

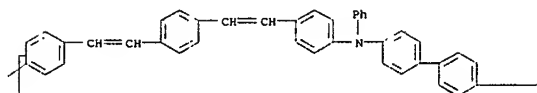
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L30 ANSWER 33 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

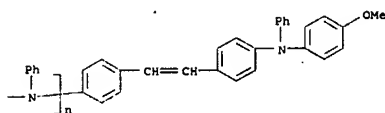
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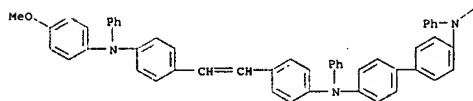


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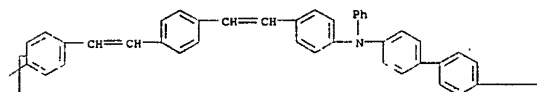


L30 ANSWER 34 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

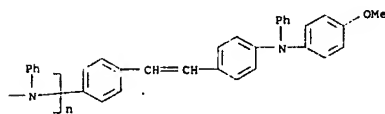
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L30 ANSWER 34 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2005:450034 CAPLUS
 DOCUMENT NUMBER: 142:490345
 TITLE: Electrophotographic apparatus, photoreceptors therefor, process cartridges therewith, and method for forming high-quality sharp images thereby
 INVENTOR(S): Sakimura, Tomoko; Shibata, Toyoko; Yamazaki, Hiroshi; Asano, Masao
 PATENT ASSIGNEE(S): Konica Minolta Business Technologies, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 51 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005134516	A2	20050526	JP 2003-368610	20031029
PRIORITY APPLN. INFO.:			JP 2003-368610	20031029

OTHER SOURCE(S): MARPAT 142:490345
 AB The photoreceptors contain (A) X(CTM)nY mixts. (CTM = charge-transporting group; X, Y = H, halo, monovalent organic group; n = 0-10; with the proviso that when X = Y = H, n = 1-10) with x + y \leq 99% (x, y = concentration of the maximum and the 2nd maximum components, resp.) and have (B) inorg. particles (e.g., hydrophobic silica) on the surfaces. In photoreceptors having charge-generating layers and charge-transporting layers in this order on conductive supports, the mixts. A are contained in the charge-transporting layers. In process cartridges, the photoreceptors are held together with chargers, imagers, developers, transfer means, charge removers, and/or cleaning means.
 IT RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses) (oligomers, charge transporters; electrophotog. photoreceptors having charge-transporting oligomers and surface inorg. particles for forming high-quality sharp images)
 RN 851957-21-6 CAPLUS
 CN

Poly[(phenylimino)[1,1'-biphenyl]-4,4'-diyl(phenylimino)-1,4-phenylene-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl-1,4-phenylene],
 - α -[4-[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]phenyl]- ω -[[4'-[4-[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]phenyl]phenylamino][1,1'-biphenyl]-4-yl]phenylamino]- (9CI) (CA INDEX NAME)

L30 ANSWER 35 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2005:450033 CAPLUS
 DOCUMENT NUMBER: 142:490344
 TITLE: Electrophotographic apparatus, photoreceptors therefor, process cartridges therewith, and method for forming high-quality sharp images thereby
 INVENTOR(S): Shibata, Toyoko; Sakimura, Tomoko; Yamazaki, Hiroshi; Asano, Masao
 PATENT ASSIGNEE(S): Konica Minolta Business Technologies, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 89 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

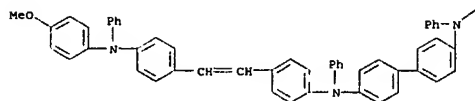
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005134515	A2	20050526	JP 2003-368609	20031029
PRIORITY APPLN. INFO.:			JP 2003-368609	20031029

AB The photoreceptors contain (A) X(CTM)nY mixts. (CTM = charge-transporting group; X, Y = H, halo, monovalent organic group; n = 0-10; with the proviso that when X = Y = H, n = 1-10) with x + y \leq 99% (x, y = concentration of the maximum and the 2nd maximum components, resp.) and electron-injecting layers. In photoreceptors having charge-generating layers and charge-transporting layers in this order on conductive supports, the mixts. A are contained in the charge-transporting layers. In process cartridges, the photoreceptors are held together with chargers, imagers, developers, transfer means, charge removers, and/or cleaning means.
 IT RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses) (oligomers, charge transporters; electrophotog. photoreceptors having charge-transporting oligomers and electron-injecting layers for forming high-quality sharp images)
 RN 851957-21-6 CAPLUS
 CN

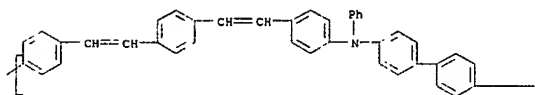
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 - α -[4-[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]phenyl]- ω -[[4'-[4-[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]phenyl]phenylamino][1,1'-biphenyl]-4-yl]phenylamino]- (9CI) (CA INDEX NAME)

L30 ANSWER 35 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

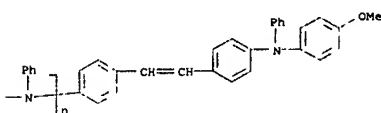
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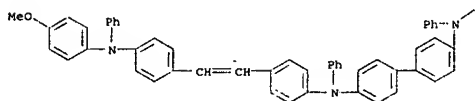
L30 ANSWER 36 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2005:450332 CAPLUS
 DOCUMENT NUMBER: 142:490343
 TITLE: Electrophotographic apparatus, photoreceptors therefor, process cartridges therewith, and method for forming high-quality sharp images thereby
 INVENTOR(S): Shibata, Toyoko; Sakimura, Tomoko; Yamazaki, Hiroshi; Asano, Masao
 PATENT ASSIGNEE(S): Konica Minolta Business Technologies, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 112 pp.
 DOCUMENT TYPE: CODEN: JKKXAF
 LANGUAGE: Patent
 FAMILY ACC. NUM. COUNT: Japanese
 PATENT INFORMATION: 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005134514	A2	20050526	JP 2003-368608	20031029
PRIORITY APPLN. INFO.:			JP 2003-368608	20031029

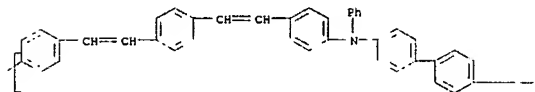
OTHER SOURCE(S): MARPAT 142:490343
 AB The photoreceptors contain (A) crosslinked siloxanes (containing other polymers, antioxidants, and/or charge-transporting components) and (B) X(CTM)nY mixts. (CTM = charge-transporting group; X, Y = H, halo, monovalent organic group; n = 0-10; with the proviso that when X = Y = H, n = 1-10) with x + y ≤ 99% (x, y = concentration of the maximum and the 2nd maximum components, resp.). Photoreceptors having charge-generating layers on conductive supports, B-containing charge-transporting layers thereon, and A-containing surface layers are also claimed. In process cartridges, the photoreceptors are held together with chargers, imagers, developers, transfer means, charge removers, and/or cleaning means.
 IT 851957-21-6
 RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
 (oligomers, charge transporters: electrophotog. photoreceptors containing charge-transporting oligomers and crosslinked siloxanes for forming high-quality sharp images)
 RN 851957-21-6 CAPLUS
 CN Poly[(phenylimino)[1,1'-biphenyl]-4,4'-diyl(phenylimino)-1,4-phenylene-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl-1,4-phenylene],
 ω-[4-[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]phenyl]-ω'-[4'-[4-[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]phenyl]phenylamino][1,1'-biphenyl]-4-yl]phenylamino)- (9CI) (CA INDEX NAME)

L30 ANSWER 36 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

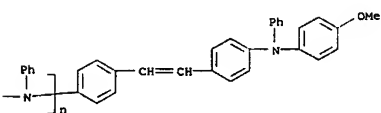
PAGE 1-A



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PAGE 1-C



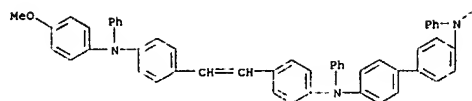
L30 ANSWER 37 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2005:445387 CAPLUS
 DOCUMENT NUMBER: 142:490340
 TITLE: Electrophotographic apparatus, photoreceptors therefor, process cartridges therewith, and method for forming high-quality sharp images thereby
 INVENTOR(S): Shibata, Toyoko; Sakimura, Tomoko; Yamazaki, Hiroshi; Asano, Masao
 PATENT ASSIGNEE(S): Konica Minolta Business Technologies, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 87 pp.
 DOCUMENT TYPE: CODEN: JKKXAF
 LANGUAGE: Patent
 FAMILY ACC. NUM. COUNT: Japanese
 PATENT INFORMATION: 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005134606	A2	20050526	JP 2003-370108	20031030
PRIORITY APPLN. INFO.:			JP 2003-370108	20031030

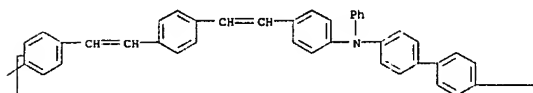
OTHER SOURCE(S): MARPAT 142:490340
 AB The photoreceptors contain (A) X(CTM)nY mixts. (CTM = charge-transporting group; X, Y = H, halo, monovalent organic group; n = 0-10; with the proviso that when X = Y = H, n = 1-10) with x + y ≤ 99% (x, y = concentration of the maximum and the 2nd maximum components, resp.) and nave (B) (F-containing) organic particles (e.g., hydrophobic silica) on the surfaces (e.g., in protective layers). In photoreceptors having charge-generating layers and charge-transporting layers in this order on conductive supports, the mixts. A are contained in the charge-transporting layers. In process cartridges, the photoreceptors are held together with chargers, imagers, developers, transfer means, charge removers, and/or cleaning means.
 IT 851957-21-6
 RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
 (oligomers, charge transporters: electrophotog. photoreceptors having charge-transporting oligomers and surface organic particles for forming high-quality sharp images)
 RN 851957-21-6 CAPLUS
 CN Poly[(phenylimino)[1,1'-biphenyl]-4,4'-diyl(phenylimino)-1,4-phenylene-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl-1,4-phenylene],
 ω-[4-[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]phenyl]-ω'-[4'-[4-[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]phenyl]phenylamino][1,1'-biphenyl]-4-yl]phenylamino)- (9CI) (CA INDEX NAME)

L30 ANSWER 37 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

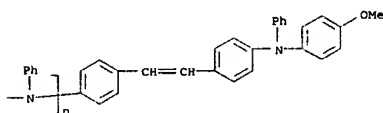
PAGE 1-A



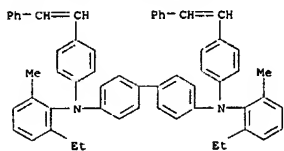
PAGE 1-B



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L30 ANSWER 38 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



L30 ANSWER 38 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2005:344603 CAPLUS
 DOCUMENT NUMBER: 142:419978
 TITLE: Electrophotographic photoreceptor with improved mechanical durability containing biphenol-structure polycarbonate resin
 INVENTOR(S): Azuma, Jun; Watanabe, Yukimasa
 PATENT ASSIGNEE(S): Kyocera Mita Industrial Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.
 CODEN: JKOXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005107321	A2	20050421	JP 2003-342394	20030930
PRIORITY APPLN. INFO.:			JP 2003-342394	20030930

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Disclosed is an electrophotog. photoreceptor comprising on an elec. conductive support a photosensitive layer containing a charge-generating agent, a charge-transporting agent, and a binder resin, wherein the binder resin is a polycarbonate resin represented by I prepared from II (R1-4 =

H, C1-12 alkyl, etc.; X = O, S, CO, etc.; R7-10 = H, CS3 alkyl, etc.; 0.4<m(n + n)<1; and q = 0, 1) having a m.p. ≤160°. The charge-transporting agent may be selected from diphenoxynone derivative, stylenzoquinone derivative, a dinaphthoquinone derivative, a naphthoquinone derivative, and azo quinone derivative The charge-generating agent may be selected from nonmetallic phthalocyanine, titanilphthalocyanine, hydroxygalliumphthalocyanine, and chlorogalliumphthalocyanine.

IT RL: DEV (Device component use); USES (Uses) (charge-transporting agent; electrophotog. photoreceptor with improved mech. durability containing biphenol-structure polycarbonate resin)

RN 850255-79-7 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine,
 N,N'-bis(2-ethyl-6-methylphenyl)-N,N'-bis[4-(2-phenylethenyl)phenyl]- (9CI) (CA INDEX NAME)

L30 ANSWER 39 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2005:235514 CAPLUS
 DOCUMENT NUMBER: 142:325822
 TITLE: Electrophotographic photoreceptor containing polymer charge-transporting substances with different average molecular weights, image-forming method using the same, image-forming apparatus, and process cartridge therefor
 INVENTOR(S): Yoshihara, Mayumi; Suzuki, Yasuo
 PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 34 pp.
 CODEN: JKOXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005070560	A2	20050317	JP 2003-301960	20030826
PRIORITY APPLN. INFO.:			JP 2003-301960	20030826

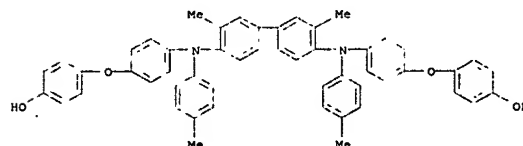
AB Disclosed is an electrophotog. photoreceptor containing a charge-generating substance and a charge-transporting substance in a photosensitive layer formed on an elec. conductive support, wherein said polymer charge-transporting substance has different average mol. wts. The charge-transporting substances are polycarbonate having a triarylamine structure in the backbone chain or the side chain.

IT 847996-71-8
 RL: DEV (Device component use); PRP (Properties); USES (Uses) (electrophotog. photoreceptor containing polymer charge-transporting substances with different average mol. wts.)

RN 847996-71-8 CAPLUS
 CN Carbonic acid, polymer with 4,4'-[(3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)bis[[4-methylphenyl]imino]-4,1-phenyleneoxy]]bis[phenol] and 4,4'-(1-methylethylidene)bis[2-methylphenol] (9CI) (CA INDEX NAME)

CH 1

CRN 359690-58-7
 CNF C52 H44 N2 O4



CH 2

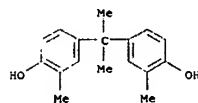
CRN 463-79-6

L30 ANSWER 39 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
CNF C H2 O3



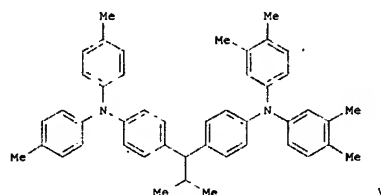
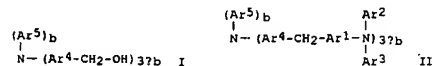
CN 3

CRN 79-97-0
CMF C17 H20 O2



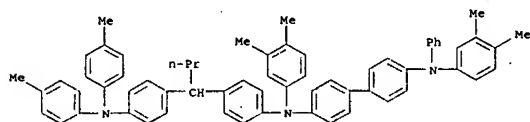
L30 ANSWER 40 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:215897 CAPLUS
DOCUMENT NUMBER: 142:297863
TITLE: Method for preparation of arylamine derivatives
INVENTOR(S): Wada, Mitsuo; Ida, Kazutaka; Fujii, Akiteru; Sato, Chiyoko
PATENT ASSIGNEE(S): Mitsubishi Chemical Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 42 pp.
CODEN: JXXXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005060387	A2	20050310	JP 2004-222511	20040729
PRIORITY APPLN. INFO.			JP 2003-282922	A 20030729
OTHER SOURCE(S):		MARPAT 142:297863		
GI				



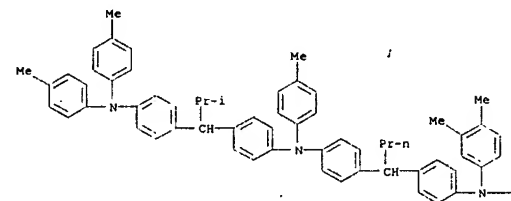
AB Arylamines of formula X(CH₂-Ar¹-NH₂)_a (X = group containing at least one arylamine skeleton; Ar¹ = arylene optionally containing methylene and NH₂ groups; a = an integer less than equal to number of aromatic ring in the arylamine skeleton; when plural number of Ar¹ are resented, they may be different), in particular (I) [Ar¹, Ar⁴ = (un)substituted arylene; Ar², Ar³, Ar⁴ = (un)substituted aryl optionally containing methylene group; b = 0, 1, 2; when plural number of Ar¹-Ar⁵ are resented, they may be different] are prepared by reaction of methanol derivs. containing arylamine of formula X(CH₂OH)_a (X, a = same as above), in particular (II) [Ar⁴, Ar⁵, b = same as above].

L30 ANSWER 40 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
as above) with arom. amines. Arylamines are suitable for use as charge transporting materials for electrophotog. photoreceptors and org. electroluminescent devices. Thus, a soln. of N,N-di(p-tolyl)aniline in 50 mL CHCl₃ was added dropwise to a soln. of 20 g AlCl₃ and 16 g isobutyryl chloride in 100 mL CHCl₃ and stirred at room temp. for 4 h, and the reaction mixt. was poured into 300 mL ice/water to give, after workup, crude N,N-di(p-tolyl)-4-isopropylcarbonylaniline (III). III was dissolved in 60 mL THF and 40 mL methanol, treated with 2.2 g NaBH₄, and stirred at room temp. for 30 min to give, after workup and silica gel chromatog., 90.7% 1-[4-(N,N-bis(p-tolyl)amino)phenyl]isobutanol (IV). A mixt. of 2 g IV, 1.7 g N,N-bis(3,4-dimethylphenyl)aniline, 30 mL acetic acid, 15 mL toluene, and 0.15 g methanesulfonic acid was stirred at 65° for 2 h to give, after workup and silica gel chromatog., 1-[4-(N,N-bis(p-tolyl)amino)phenyl]-1-[4-(N,N-bis(3,4-dimethylphenyl)amino)phenyl]isobutanol (V).
IT 847505-97-9P, 4-[N-Phenyl-N-(3,4-dimethylphenyl)amino]-4'-[N-[4-[1-[4-(bis(p-tolyl)amino)phenyl]butyl]phenyl]-N-(3,4-dimethylphenyl)amino]-1,1'-biphenyl 847506-02-9P
RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(method for preparation of aryl amine derivs. by amination of arylaminoarylmethanol derivs. with aromatic amines)
RN 847505-97-9 CAPLUS
CN (1,1'-Biphenyl)-4,4'-diamine, N-[4-[1-[4-[bis(4-methylphenyl)amino)phenyl]butyl]phenyl]-N,N'-bis(3,4-dimethylphenyl)-N'-phenyl- (9CI) (CA INDEX NAME)

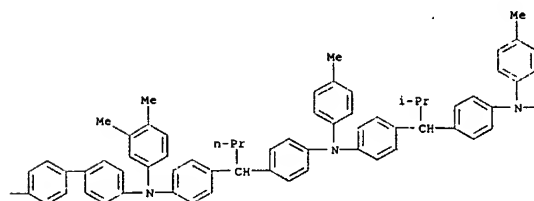


RN 847506-02-9 CAPLUS
CN (1,1'-Biphenyl)-4,4'-diamine, N,N'-bis[4-[1-[4-[1-[4-(bis(4-methylphenyl)amino)phenyl]-2-methylpropyl]phenyl]-4-methylphenyl]amino]phenyl]butyl]phenyl]-N,N'-bis(3,4-dimethylphenyl)- (9CI) (CA INDEX NAME)

L30 ANSWER 40 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
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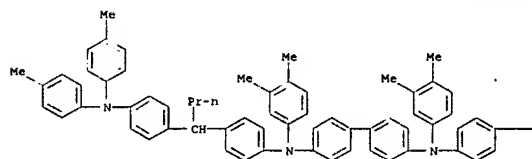
PAGE 1-C



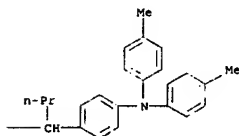
IT 847506-00-7P, 4,4'-Bis[N-[4-[1-[4-(N,N-bis(p-tolyl)amino)phenyl]butyl]phenyl]-N-(3,4-dimethylphenyl)amino]-1,1'-biphenyl
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(method for preparation of aryl amine derivs. by amination of

L30 ANSWER 40 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 arylaminoarylmethanol derivs. with arom. amines)
 RN 847506-00-7 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-[1-[4-[bis(4-methylphenyl)amino]phenyl]butyl]phenyl]-N,N'-bis(3,4-dimethylphenyl)-(9CI) (CA INDEX NAME)

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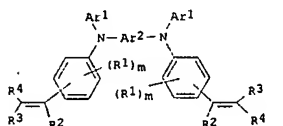
PAGE 1-B



L30 ANSWER 41 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2005:140221 CAPLUS
 DOCUMENT NUMBER: 142:228639
 TITLE: Styryl-containing arylamines as charge transporting materials for electrophotographic photoreceptors, and electrophotographic apparatus and process cartridge using them
 INVENTOR(S): Iwasaki, Masahiro; Nukada, Katsumi; Seki, Mieko
 PATENT ASSIGNEE(S): Fujl Xerox Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 43 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005043834	A2	20050217	JP 2003-280460	20030725
US 2005069796	A1	20050331	US 2004-895338	20040721
PRIORITY APPLN. INFO.:			JP 2003-280460	A 20030725

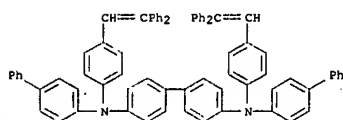
OTHER SOURCE(S): MARPAT 142:228639
 GI



AB The arylamines are I [Ar1 = R5CO2R6-substituted Ph, polycyclic aromatic hydrocarbyl, heterocyclyl; R5 = Cl-4 alkylene; R6 = Cl-4 alkyl; Ar2 = arylene; R1 = H, halo, alkoxy, alkyl; R2-R4 = H, alkyl, aryl; R3 and/or R4 = aryl; R3R4 may form ring; m = 0-4]. The arylamines show good compatibility with binder resins, resulting in forming uniform films without crystal deposition and pinholes.
 IT 821774-07-6P 839682-93-8P 839682-94-9P
 RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
 (manufacture of styryl-containing arylamines as charge transporting materials for electrophotog. photoreceptors)

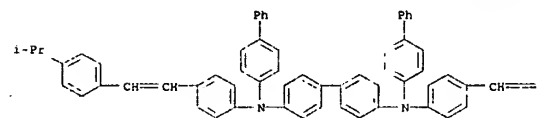
RN 821774-07-6 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis([1,1'-biphenyl]-4-yl)-N,N'-bis[4-(2,2-diphenylethenyl)phenyl]- (9CI) (CA INDEX NAME)

L30 ANSWER 41 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

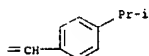


RN 839682-93-8 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis([1,1'-biphenyl]-4-yl)-N,N'-bis[4-(2-(4-(1-methylethyl)phenyl)ethenyl)phenyl]- (9CI) (CA INDEX NAME)

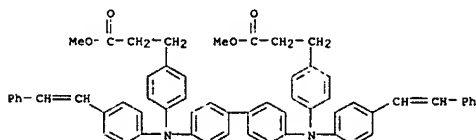
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RN 839682-94-9 CAPLUS
 CN Benzenepropanoic acid, 4,4'-[([1,1'-biphenyl]-4,4'-diylbis[4-(2-phenylethenyl)phenyl]imino]bis-, dimethyl ester (9CI) (CA INDEX NAME)

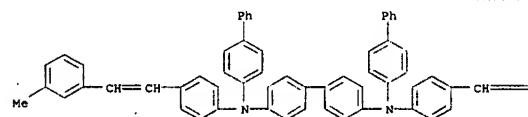


IT 839682-92-7P

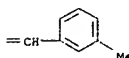
L30 ANSWER 41 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation);

RACT (Reactant or reagent)
 (manuf. of styryl-contg. arylamines as charge transporting materials for electrophotog. photoreceptors)
 RN 839682-92-7 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis([1,1'-biphenyl]-4-yl)-N,N'-bis[4-(2-(3-methylphenyl)ethenyl)phenyl]- (9CI) (CA INDEX NAME)

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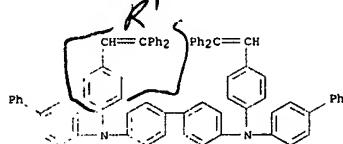
L30 ANSWER 42 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2005:15759 CAPLUS
 DOCUMENT NUMBER: 142:123038
 TITLE: Electrophotographic photoreceptor,
 electrophotographic
 INVENTOR(S): process cartridge and image forming apparatus
 YAO, Kenji; Iwasaki, Masahiro; Nukada, Katsumi
 PATENT ASSIGNEE(S): Fuji Xerox Co., Ltd., Japan
 SOURCE: U.S. Pat. Appl. Publ., 46 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005002692	A1	20050106	US 2003-745699	20031229
JP 2005024671	A2	20050127	JP 2003-187435	20030630
JP 2005024852	A2	20050127	JP 2003-189738	20030701
JP 2005024853	A2	20050127	JP 2003-189739	20030701
PRIORITY APPLN. INFO.:			JP 2003-187435	A 20030630
			JP 2003-189738	A 20030701
			JP 2003-189739	A 20030701

OTHER SOURCE(S): MARPAT 142:123038
 AB An electrophotog. photoreceptor comprising a conductive substrate, and at least one layer, which contains a polymeric compound having a repeating unit

selected from repeating units represented by the following general formulas (COO-Y-O)n, (C(O)-X-COO-Y-O)n, and (C(O)-X-COO-R1a-O-Y-O-R1b-O)n (R1a, R1b = alkylene group; X = arylene group or alkylene group; Y = divalent aromatic group; and n = repeating unit number), provided on the conductive substrate, as well as an electrophotog. process cartridge and an image forming apparatus using the electrophotog. photoreceptor.

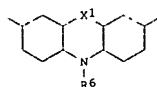
IT 821774-07-6
 RL: DEV (Device component use); USES (Uses)
 (electrophotog. photoreceptor containing polymeric compound and charge-transport material)
 RN 821774-07-6 CAPLUS
 CN (1,1'-Biphenyl)-4,4'-diamine, N,N'-bis([1,1'-biphenyl]-4-yl)-N,N'-bis[4-(2,2-diphenylethenyl)phenyl]- (9CI) (CA INDEX NAME)



L30 ANSWER 43 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:1058706 CAPLUS
 DOCUMENT NUMBER: 142:45848
 TITLE: Electrophotographic apparatus and image formation using particle size-controlled toner
 INVENTOR(S): Itami, Akihiko; Shibata, Toyoko; Sakimura, Tomoko; Asano, Masao
 PATENT ASSIGNEE(S): Konica Minolta Business Technologies, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 91 pp.
 CODEN: JKOXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004347853	A2	20041209	JP 2003-144705	20030522
PRIORITY APPLN. INFO.:			JP 2003-144705	20030522

OTHER SOURCE(S): MARPAT 142:45848
 GI

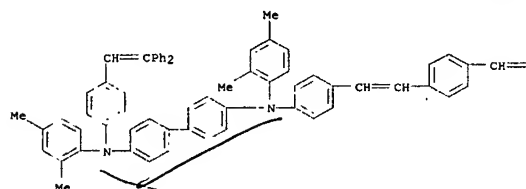


AB The image formation, having process speed (Td) from imagewise exposure to developing process ≤110 ms, uses developer containing toner and photoreceptor comprising a conductive support coated with a charge-generating layer and a charge-transporting layer containing R1Ar1C:CR2ACR2:CR3Ar2CR3:CR2ACR2:CAr1R1 [Ar1 = aryl; Ar2 = divalent aromatic group, furan, thiophene, p-C6H5YC6H5-p (Y = bond, O, S, CH:CH, CR4R5); R1-3 = H, alkyl, aryl; A = divalent group with triarylamine group, Q1 (X1 = bond, alkylene, O, S, R6 = alkyl, aryl); these groups may be substituted; Ar1 and R1 may form a ring]. The toner is characterized by (1) Dv50/Dp50 = 1.0-1.15, (2) Dv75/Dp75 = 1.0-1.20, and (3) number of toner satisfying D ≤ 0.7 + Dp50 is ≤10 number% [Dv50 = 50% volume particle size; Dp50 50% number particle size; Dv75 = 75% volume cumulative particle size from larger side; Dp75 = 75% number cumulative particle size from larger side]. The electrophotog. apparatus used in the process is claimed. High d. and clear images are obtained even under low temperature and moisture conditions.

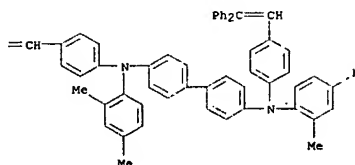
IT 803734-61-4
 RL: DEV (Device component use); USES (Uses)
 (electrophotog. image formation using photoreceptor with charge-transporting layer containing arylamine compound and particle size-controlled toner)
 RN 803734-61-4 CAPLUS

L30 ANSWER 43 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-[1,4-phenylenebis(2,1-ethenediyl-4,1-phenylene)]bis[N,N'-bis(2,4-dimethylphenyl)-N'-[4-(2,2-diphenylethenyl)phenyl]- (9CI) (CA INDEX NAME)

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L30 ANSWER 44 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:871298 CAPLUS
 DOCUMENT NUMBER: 141:357790
 TITLE: Organic electroluminescent (EL) device with excellent durability, light emission efficiency, and high luminance
 INVENTOR(S): Mishima, Masayuki
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004296407	A2	20041021	JP 2003-90713	20030328
PRIORITY APPLN. INFO.: JP 2003-90713 20030328				

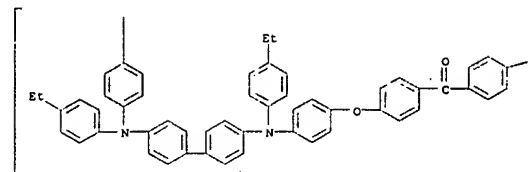
AB The organic EL device contains, between a pair of electrodes, an organic layer containing ≥ 1 light-emitting layers involving a layer containing a phosphorescent compound and a host compound selected from those represented by general formulas OAr1N(Ar3)Ar2N(Ar3)Ar1OAr4XAr5 (Ar1, Ar2, Ar4, Ar5 = divalent aromatic group; Ar3 = monovalent aromatic group; X = single bond, sulfone, carbonyl, alkylene) and/or OAr6N(Ar8NAr72)Ar6OAr9YAr10 (Ar6, Ar8, Ar9, Ar10 = divalent aromatic group; Ar7 = aromatic group; Y = sulfone, carbonyl, alkylene) and optionally electron-withdrawing compds. The organic EL device is useful for a full-color display, a back light, a surface-emitting light source, a light source array for a printer, etc.

IT 389104-48-7
 RL: DEV (Device component use); USES (Uses)
 (host: organic EL device with excellent durability, light emission efficiency, and high luminance, containing phosphorescent compound and diamine polymer hosts)

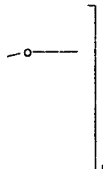
RN 389104-48-7 CAPLUS
 CN Poly[oxy-1,4-phenylene-carbonyl-1,4-phenyleneoxy-1,4-phenylene[(4-ethylphenyl)imino][1,1'-biphenyl]-4,4'-diyl[(4-ethylphenyl)imino]-1,4-phenylene] (9CI) (CA INDEX NAME)

L30 ANSWER 44 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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L30 ANSWER 45 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:871215 CAPLUS
 DOCUMENT NUMBER: 141:372541
 TITLE: Materials for organic electroluminescent devices
 INVENTOR(S): Kawabata, Yuichiro; Momota, Junji; Takahashi, Naoto
 PATENT ASSIGNEE(S): Tokuyama Corp., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 48 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004292766	A2	20041021	JP 2003-90642	20030328
PRIORITY APPLN. INFO.: JP 2003-90642 20030328				

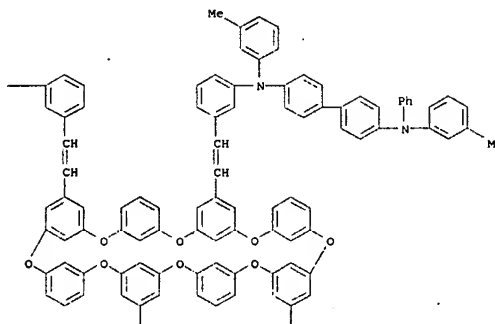
OTHER SOURCE(S): MARPAT 141:372541
 AB The materials comprise light-emitting organic group- or charge-transporting organic group-containing cyclic aryl ether derivs. or cyclic aryl sulfide derivs. The devices have light-emitting layers and optionally charge-transporting layers between anodes and cathodes, wherein the light-emitting layers and/or the charge-transporting layers contain the above materials. The materials are spin-coated to give high-purity films easily.

IT 777947-30-5P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (cyclic aryl ether or sulfide derivs. for light-emitting layers and/or the charge-transporting layers in organic electroluminescent devices)

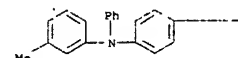
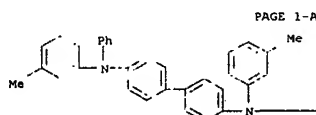
RN 777947-30-5 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'',N''',N''''-[2,8,14,20,26,32,38,44-octa-oxanonacyclo[43.3.1.13.7.19.13.115.19.121.25.127.31.133.37.139.43]hexa-pentaconta-1(49),3,5,7(56),9,11,13(55),15,17,19(54),21,23,25(53),27,29,31(52),33,35,37(51),39,41,43(50),45,47-tetracosane-5,17,29,41-tetrayltetrakis(2,1-ethenediyl-3,1-phenylene)]tetrakis[N,N'-bis(3-methylphenyl)-N'-phenyl-] (9CI) (CA INDEX NAME)

L30 ANSWER 45 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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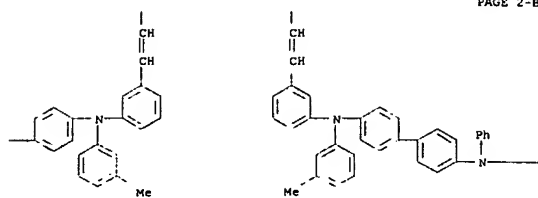


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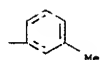


L30 ANSWER 45 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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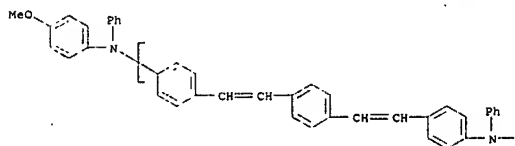
PAGE 2-C



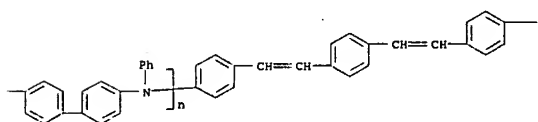
L30 ANSWER 46 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

RN 767336-18-5 CAPLUS
 CN
 Poly[(phenylimino){1,1'-biphenyl]-4,4'-diyl(phenylimino)-1,4-phenylene-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl-1,4-phenylene],
 u-[4-[2-[4-[2-[4-[4-methoxyphenyl]phenylamino]phenyl]ethenyl]phenyl
]ethenyl]phenyl]-u-[(4-methoxyphenyl)phenylamino]- (9CI) (CA INDEX
 NAME)

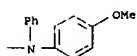
PAGE 1-A



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PAGE 1-C



130 ANSWER 46 OF 143 CAPLUS COPYRIGHT 2006 ACS ON STM
ACCESSION NUMBER: 2004:802399 CAPLUS
DOCUMENT NUMBER: 141:322519
TITLE: Electrophotographic photoreceptor comprising mixtures
of charge transfer compounds
INVENTOR(S): Sakimura, Tomoko; Shibata, Toyoko
PATENT ASSIGNEE(S): Konica Minolta Holdings, Inc., Japan
SOURCE: U.S. Pat. Appl. Publ., 55 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004191654	A1	20040930	US 2004-805962	20040322
JP 2004302032	A2	20041028	JP 2003-93896	20030331
JP 2004302033	A2	20041028	JP 2003-93897	20030331
JP 2004347855	A2	20041209	JP 2003-144707	20030522
JP 2005099777	A2	20050414	JP 2004-246408	20040826
PRIORITY APPLN. INFO.:			JP 2003-93896	A 20030331
			JP 2003-93897	A 20030331
			JP 2003-144707	A 20030522
			JP 2003-304318	A 20040828

OTHER SOURCE(S): MARPAT 141:322519

AB An electrophotographic photoreceptor comprising a support and a photosensitive layer is disclosed. The photoreceptive layer contains a mixture of compds. represented by Formula (1): $X-(CTM)n-Y$ (CTM = charge transfer group; X, Y = H, halogen, mono-valent organic group; n = 0-10; provided that n = 1-10, when both X and Y are hydrogen atom or a halogen atom); and with condition of $(Rp+Rs) \leq 991$, Rp = ratio of a component having the maximum content in the mixture and Rs = ratio of a component having the content next to the maximum content in %. A processing cartridge comprising the electrophotographic photoreceptor is also disclosed. The object of the invention is to prevent the defects of the image caused by the decrease of the sensitivity, which tends to occur in the course of high speed copying or copying under a low temperature and low humidity condition, by the lowering of the sharpness of the image accompanying the decreasing of image d. and thinning of character image caused by the charge fluctuation of the solid black image area.

IT 767336-18-5

RL: PRP (Properties); TEM (Technical or engineered material use); USSE (Uses)

(electrophotographic photoreceptor comprising mixts. of charge transfer compds.)

L30 ANSWER 47 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:741790 CAPLUS
DOCUMENT NUMBER: 141:251399
TITLE: Arylamine compounds for application as positive hole transporting material in electrophotographic photoreceptor
INVENTOR(S): Ida, Kazutaka; Wada, Mitsuo; Fujii, Akiteru
PATENT ASSIGNEE(S): Mitsubishi Chemical Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 23 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

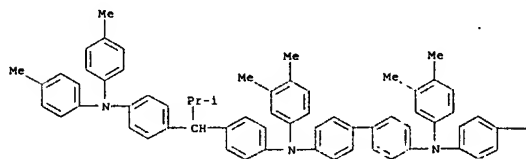
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004250448	A2	20040909	JP 2004-23842	20040130
PRIORITY APPLN. INFO.:			JP 2003-22676	A 20030130

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OTHER SOURCE(S):          MARPAT 141:251399
AB  The invention is concerned about arylamine compds. with certain
structure.
The compds. can be used as pos. hole transporting agents in the
photosensitive layer of an electrophotog. photoreceptor.
IT  753007-61-3
RL: MOA (Modifier or additive use); USES (Uses)
    (arylamine compds. for application as pos. hole transporting material
    in electrophotog. photoreceptor)
RN  753007-61-3 CAPLUS
CN  [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-{1-[(4-bis(4-
    methylphenyl)amino)phenyl]-2-methylpropyl}phenyl]-N,N'-bis(3,4-
    dimethylphenyl)- (9CI) (CA INDEX NAME)

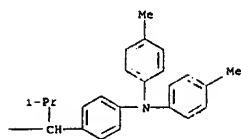
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L30 ANSWER 47 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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L30 ANSWER 48 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:515811 CAPLUS
 DOCUMENT NUMBER: 141:79271
 TITLE: Electrophotographic photoreceptor containing polyarylate resin and amine compound of specified structure in photoreceptive layer
 INVENTOR(S): Fujii, Akiteru; Nagao, Yuka; Hiroi, Masayuki
 PATENT ASSIGNEE(S): Mitsubishi Chemical Corporation, Japan
 SOURCE: PCT Int. Appl., 47 pp.
 CODE: 515811XKD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004053597	A1	20040624	WO 2003-JP15615	20031205
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,			
TG				
AU 2003289211	A1	20040630	AU 2003-289211	20031205
JP 2004199051	A2	20040715	JP 2003-406783	20031205
EP 1569038	A1	20050831	EP 2003-777304	20031205
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
CN 1742236	A	20060301	CN 2003-80109221	20031205
US 2006134541	A1	20060622	US 2005-144839	20050606
PRIORITY APPL. INFO.:			JP 2002-355605	A 20021206
			WO 2003-JP15615	W 20031205

AB The invention relates to an electrophotog. photoreceptor that exhibits high durability in ozone, NOx, etc., excelling in mech. properties such as printing durability, wear resistance, flaw resistance and sliding property at repeated use, and further exhibits excellent elec. characteristics.

IN particular, an electrophotog. photoreceptor comprising a conductive support and, superimposed thereon, at least a photoreceptive layer characterized in that the photoreceptive layer comprises at least a polyarylate resin and an amine compound of specified structure.

IT RL: TEM (Technical or engineered material use); USES (Uses) (photoreceptive layer of electrophotog. photoreceptor)

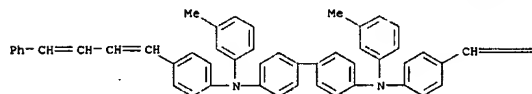
RN 197234-75-6 CAPLUS

CN (1,1'-Biphenyl)-4,4'-diamine, N,N'-bis(3-methylphenyl)-N,N'-bis[4-(4-

L30 ANSWER 48 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

phenyl-1,3-butadienyl)phenyl]- (9CI) (CA INDEX NAME)

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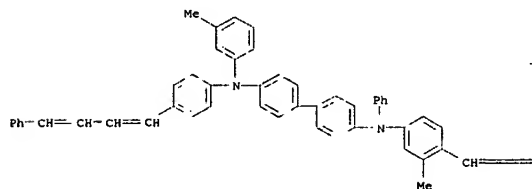


PAGE 1-B

= CH-CH=CH-Ph

RN 461647-63-2 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N-(3-methylphenyl)-N'-[3-methyl-4-(4-phenyl-1,3-butadienyl)phenyl]-N'-phenyl-N-[4-(4-phenyl-1,3-butadienyl)phenyl]- (9CI) (CA INDEX NAME)

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L30 ANSWER 48 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

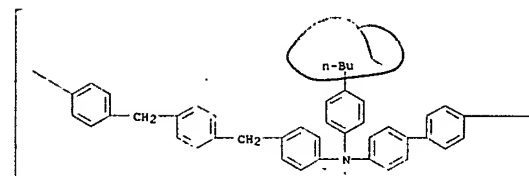
PAGE 1-B

= CH-CH=CH-Ph

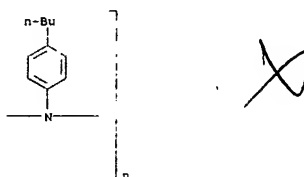
L30 ANSWER 49 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:392790 CAPLUS
 DOCUMENT NUMBER: 141:243907
 TITLE: Synthesis of charge transporting polymers containing TPD units and their application in electroluminescent devices
 AUTHOR(S): Nie, Hai; Tang, Xian-Zhong; Li, Yuan-Xun
 CORPORATE SOURCE: Sch. Microelectronics and Solid-State Electronics, Univ. Electronics Sci. Technol. of China, Chengdu, 610054, Peop. Rep. China
 SOURCE: Yingyong Huaxue (2004), 21(4), 415-418
 CODEN: YIHUED; ISSN: 1000-0518
 PUBLISHER: Kexue Chubanshe
 DOCUMENT TYPE: Journal
 LANGUAGE: Chinese
 AB Monomer N,N'-diphenyl-N,N'-bis(4-alkylphenyl)-benzidine (alkyl-TPD) prepared by Ullmann reaction of N,N'-diphenylbenzidine with 1-halogen-4-alkylbenzene using 18-crown-6 as phase transfer catalyst and o-dichlorobenzene as solvent was reacted with 1,4-bis(chloromethyl)benzene (BCB) or 9,10-bis(chloromethyl)anthracene (BCA) by condensation polymerization through Friedel-Crafts reaction in chlorobenzene, using SnCl₄ or AlCl₃ as catalysts under nitrogen atmospheric at 40 .apprx. 80° for 1 .apprx. 12 h. TPD units were introduced into the main chain of the polymer. A series of the novel EL polymer with charge transporting property were synthesized in high yield (up to 96%) and with high mol. weight (with maximum value 2.9 × 10⁵). All polymers had higher T_g than that of TPD itself (maximum value of T_g was 245°). Their properties in electroluminescent devices have been investigated. The results showed EL wavelength is moved 60 nm toward IR region as compared with that of TPD.
 IT 431942-08-4P
 RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (synthesis of charge transporting polymers containing TPD units and their application in electroluminescent devices)
 RN 431942-08-4 CAPLUS
 CN Poly[[4-butylphenylimino][1,1'-biphenyl]-4,4'-diyl[(4-butylphenylimino)-1,4-phenylenemethylene-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)]

L30 ANSWER 49 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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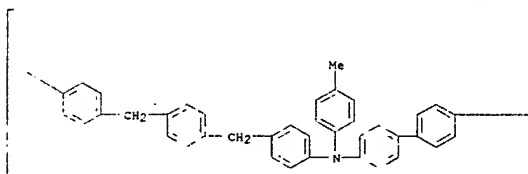
PAGE 1-B



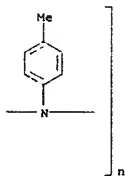
IT 404589-25-9P
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (synthesis of charge transporting polymers containing TPD units and their application in electroluminescent devices)
 RN 404589-25-9 CAPLUS
 CN Poly[[4-methylphenylimino][1,1'-biphenyl]-4,4'-diyl[(4-methylphenylimino)-1,4-phenylenemethylene-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)]

L30 ANSWER 49 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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L30 ANSWER 50 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:272005 CAPLUS
 DOCUMENT NUMBER: 140:311907
 TITLE: Organic photoreceptor containing titanylphthalocyanine

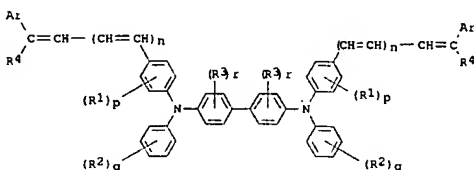
INVENTOR(S):

PATENT ASSIGNEE(S):
 SOURCE:

DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004101882	A2	20040402	JP 2002-263867	20020910
PRIORITY APPLN. INFO.:				
			JP 2002-263867	20020910

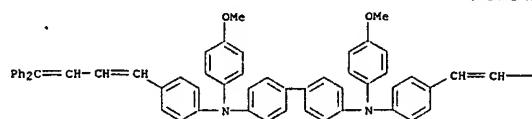
OTHER SOURCE(S): MARPAT 140:311907
 GI



AB The organic photoreceptor comprises an adduct formed between titanylphthalocyanine and a diol having OHs on neighboring carbon sites as a charge-generating substance and a compound I (R1-3 = H, halo, alkyl, etc.:
 p, q, r = integer 0-4; Ar = aromatic hydrocarbon, heterocyclyl; R4 = H, aromatic hydrocarbon, heterocyclyl; and 0, 1) as a charge-transporting substance.
 IT 197234-74-5 676540-64-0 676540-65-1 676540-66-2
 RL: DEV (Device component use); USES (Uses)
 (organic photoreceptor containing titanylphthalocyanine diol adduct charge-generating substance and charge-transporting substance)
 RN 197234-74-5 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-(4,4-diphenyl-1,3-

L30 ANSWER 50 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
butadienylphenyl)-N,N'-bis(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

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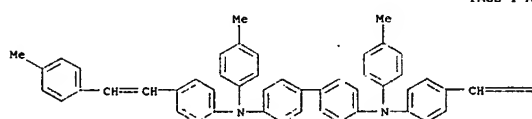


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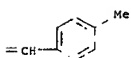
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RN 676540-64-0 CAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(4-methylphenyl)-N,N'-bis[4-[2-(4-methylphenyl)ethenyl]phenyl]- (9CI) (CA INDEX NAME)

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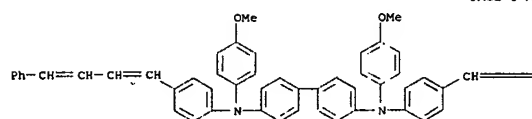
PAGE 1-B



RN 676540-65-1 CAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-N,N'-bis[4-(4-chlorophenyl)-

L30 ANSWER 50 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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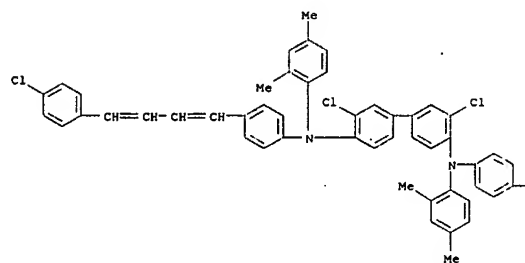


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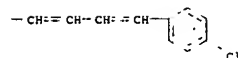
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L30 ANSWER 50 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
1,3-butadienylphenyl)-N,N'-bis(2,4-dimethylphenyl)- (9CI) (CA INDEX NAME)

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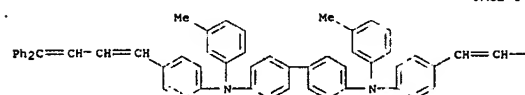
RN 676540-66-2 CAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(4-methoxyphenyl)-N,N'-bis[4-(4-phenyl-1,3-butadienyl)phenyl]- (9CI) (CA INDEX NAME)

L30 ANSWER 51 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:271984 CAPLUS
DOCUMENT NUMBER: 140:294755
TITLE: Electrophotographic photoreceptor, imaging device, imaging method, and process cartridge
INVENTOR(S): Hayata, Hirofumi; Kishihara, Kenichi; Sakimura, Tomoo
PATENT ASSIGNEE(S): Konica Minolta Holdings Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 59 pp.
CODEN: JKOXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004101800	A2	20040402	JP 2002-262594	20020909
PRIORITY APPLN. INFO.:			JP 2002-262594	20020909

AB Title photoreceptor comprises a conductive substrate, an intermediate layer containing a resin having melting heat 0-40 J/g and water absorption <5 weight%, a charge-generating layer containing a charge-generating substance having an endothermic peak at 70-150°, and a charge-transporting layer containing a charge-transporting substance with triphenylamine-type structure. An imaging device, imaging method, and process cartridge using the photoreceptor are also claimed.
IT 197234-73-4
RL: MOD (Modifier or additive use); USES (Uses)
(electrophotog. photoreceptor having improved moisture resistance)
RN 197234-73-4 CAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-(4,4-diphenyl-1,3-butadienyl)phenyl]-N,N'-bis(3-methylphenyl)- (9CI) (CA INDEX NAME)

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—CH=CPh₂

L30 ANSWER 52 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:250393 CAPLUS
 DOCUMENT NUMBER: 140:294512
 TITLE: Organic electroluminescence elements with charge-transfer polyesters.
 INVENTOR(S): Ishii, Toru; Mashimo, Kiyokazu; Agata, Takeshi; Ozaki, Tadayoshi; Hirose, Eiichi; Okuda, Daisuke; Yoneyama, Hiroto; Seki, Miko; Sato, Katsuhiro
 PATENT ASSIGNEE(S): Fujii Kerox Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 76 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004095186	A2	20040325	JP 2002-250428	20020829
PRIORITY APPLN. INFO.:			JP 2002-250428	20020829

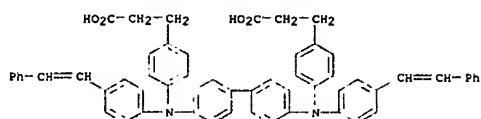
AB The disclosed organic electroluminescent device has 21 layers containing a charge transfer polyesters having structure repeating units of the formula

$$\text{TnOmc6H4NArX(NAr)pc6H4OmTn or TnOmc6H4C6H4NArX(NAr)pc6H4C6H4OmTn [m,n,p]}$$

 0, 1: X = divalent aromatic moiety; Ar = Ar1Z(Ar2Z1)qAr3; Ar1 = monovalent polycyclic aryl, heterocyclyl; Ar2, Ar3 = divalent polycyclic aromatic or heterocyclic moiety; Z, Z1 = CR:CR1, ethynediyl; R, R1 = H or substituent]. The device possesses sufficient brightness, good stability and durability, and useful in large display devices.
 IT 675584-16-4P 675584-18-6P 675584-21-1P 675584-22-2P
 RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (Charge transfer polyester for organic electroluminescent display devices)

RN 675584-16-4 CAPLUS
 CN Benzenepropanoic acid, 4,4'-[([1,1'-biphenyl]-4,4'-diylbis[4-(2-phenylethenyl)phenyl]imino)]bis-, polymer with 1,2-ethanediol (9CI) (CA INDEX NAME)
 CM 1
 CRN 675584-15-3
 CMF C58 H48 N2 O4

L30 ANSWER 52 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

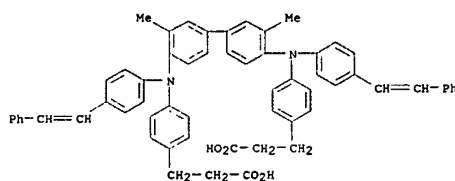


CM 2
 CRN 107-21-1
 CMF C2 H6 O2

HO-CH₂-CH₂-OH

RN 675584-18-6 CAPLUS
 CN Benzenepropanoic acid, 4,4'-[([3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl]bis[4-(2-phenylethenyl)phenyl]imino)]bis-, polymer with 1,2-ethanediol (9CI) (CA INDEX NAME)

CM 1
 CRN 675584-17-5
 CMF C60 H52 N2 O4



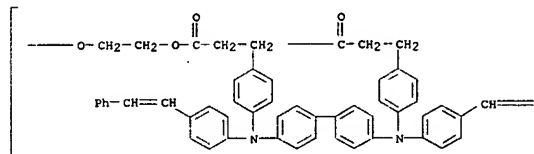
CM 2
 CRN 107-21-1
 CMF C2 H6 O2

HO-CH₂-CH₂-OH

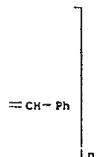
L30 ANSWER 52 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

RN 675584-21-1 CAPLUS
 CN Poly[oxy-1,2-ethanediyl oxy(1-oxo-1,3-propanediyl)-1,4-phenylene[4-(2-phenylethenyl)phenyl]imino][1,1'-biphenyl]-4,4'-diyl[4-(2-phenylethenyl)phenyl]imino]-1,4-phenylene[3-oxo-1,3-propanediyl] (9CI) (CA INDEX NAME)

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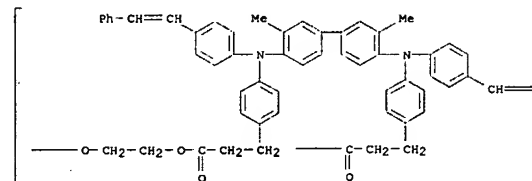
PAGE 1-B



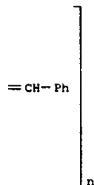
RN 675584-22-2 CAPLUS
 CN Poly[oxy-1,2-ethanediyl oxy(1-oxo-1,3-propanediyl)-1,4-phenylene[4-(2-phenylethenyl)phenyl]imino][3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl][4-(2-phenylethenyl)phenyl]imino]-1,4-phenylene[3-oxo-1,3-propanediyl] (9CI) (CA INDEX NAME)

L30 ANSWER 52 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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L30 ANSWER 53 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:219366 CAPLUS
 DOCUMENT NUMBER: 140:278198
 TITLE: Organic electroluminescent device
 INVENTOR(S): Okuda, Daisuke; Seki, Mieko; Yoneyama, Hiroto;
 Hirose, Eiichi; Ozaki, Tadayoshi; Agata, Takashi; Ishii,
 Toru;
 PATENT ASSIGNEE(S): Mashimo, Kiyokazu; Sato, Katsuhiko
 SOURCE: Fuji Xerox Co., Ltd., Japan
 Jpn. Kokai Tokkyo Koho, 42 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

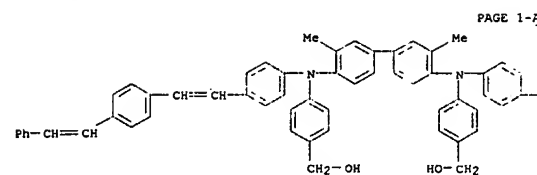
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004087372	A2	20040318	JP 2002-248676	20020828
PRIORITY APPLN. INFO.:			JP 2002-248676	20020828

AB The invention relates to an organic electroluminescent device comprising the charge transporting polyurethane containing the partial structure represented by -C6H4-N(Ar)X[N(Ar)C6H4]k- and -C6H4-C6H4-N(Ar)X[N(Ar)C6H4-C6H4]k- [X = divalent aromatic group; k = 0 or 1; Ar = Ar1C(R1)=C(R2)-(Ar2-C(R3)=C(R4)-n-Ar3- and Ar1-C.tplbond.C-(Ar2-C.tplbond.C)-n-Ar3- [Ar1-3 = benzene ring, and 2-10 ring aromatic hydrocarbons; R1-4 = H, alkyl, alkoxy, etc.; n =

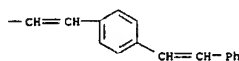
0-10 integer]].
 IT 672941-59-2 672941-60-5 672941-62-7
 672941-63-8
 RL: DEV (Device component use): USES (Uses)
 (organic electroluminescent device comprising charge transporting polyurethane)
 RN 672941-59-2 CAPLUS
 CN Benzenemethanol, 4,4'-bis-[(3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)bis{[4-(2-phenylethenyl)phenyl]ethenyl}imino}]bis-, polymer with 1,6-diisocyanatohexane (9CI) (CA INDEX NAME)

CM 1
 CRN 672941-58-1
 CMF C72 H60 N2 O2

L30 ANSWER 53 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



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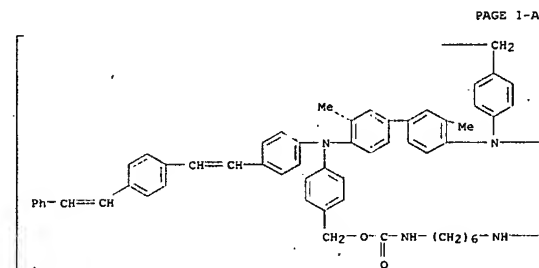


CM 2
 CRN 822-06-0
 CMF C8 H12 N2 O2

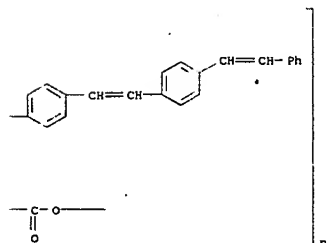
OCN- (CH2)6- NCO

RN 672941-60-5 CAPLUS
 CN Poly[oxy carbonylimino-1,6-hexanediyliminocarbonyloxymethylene-1,4-phenylene{[4-(2-{[4-(2-phenylethenyl)phenyl]ethenyl}phenyl)imino]{3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl}[[4-(2-phenylethenyl)phenyl]ethenyl]imino}-1,4-phenylenemethylene] (9CI) (CA INDEX NAME)

L30 ANSWER 53 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



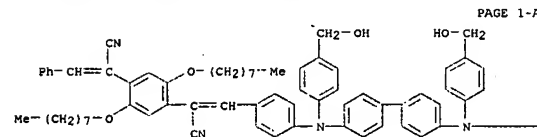
PAGE 1-B



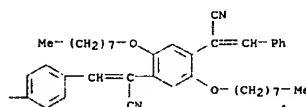
RN 672941-62-7 CAPLUS
 CN 1,4-Benzenediacetonitrile, u,u'-bis-[(1,1'-biphenyl)-4,4'-diylbis{[4-(hydroxymethyl)phenyl]imino}-4,1-phenylenemethylidene}]bis(2,5-bis(octyloxy)-u,u'-(phenylmethylene)-, polymer with 1,6-diisocyanatohexane (9CI) (CA INDEX NAME)

CM 1
 CRN 672941-61-6
 CMF C106 H116 N6 O6

L30 ANSWER 53 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



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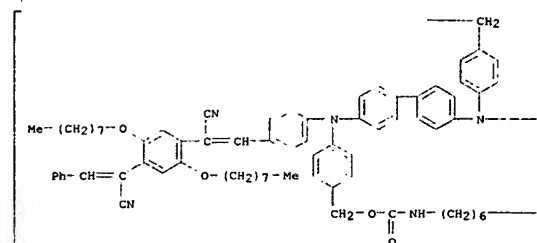
CM 2
 CRN 822-06-0
 CMF C8 H12 N2 O2

OCN- (CH2)6- NCO

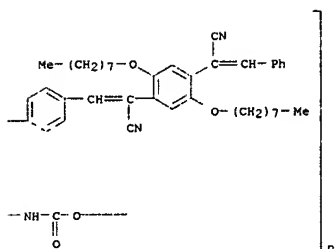
RN 672941-63-8 CAPLUS
 CN Poly[oxy carbonylimino-1,6-hexanediyliminocarbonyloxymethylene-1,4-phenylene{[4-(2-cyano-2-phenylethenyl)-2,5-bis(octyloxy)phenyl]ethenyl}imino][1,1'-biphenyl]-4,4'-diyl{[4-(2-cyano-2-phenylethenyl)-2,5-bis(octyloxy)phenyl]ethenyl}imino}-1,4-phenylenemethylene] (9CI) (CA INDEX NAME)

L30 ANSWER 53 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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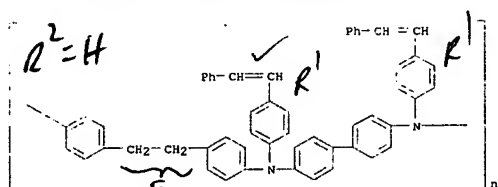
L30 ANSWER 54 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:77079 CAPLUS
 DOCUMENT NUMBER: 140:136192
 TITLE: Organic electroluminescent device
 INVENTOR(S): Hirose, Eiichi; Yoneyama, Hiroto; Okuda, Daisuke; Seki, Miko; Ozaki, Tadayoshi; Agata, Takashi; Ishii, Toru; Mashimo, Kiyokazu; Sato, Katsuhiro
 PATENT ASSIGNEE(S): Fuji Xerox Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 47 pp.
 CODEN: JXXXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

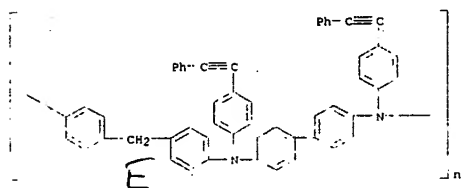
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004030942	A2	20040129	JP 2002-181030	20020621
PRIORITY APPLN. INFO.: JP 2002-181030				

AB The invention relates to an organic electroluminescent device comprising the charge transporting polyether represented by R-O-[A-O]p-R, [R = H, alkyl, aryl, and aralkyl; A = -TmC6H4N(Ar)X(N(Ar)C6H4)kTm- and -TmC6H4-C6H4N(Ar)X(N(Ar)C6H4-C6H4)kTm- [X = phenylene, monovalent polycyclic aroms., monovalent condensed aromatic hydrocarbon, and monovalent aromatic heterocyclic; T = divalent hydrocarbon chain (C1-6), and divalent branched hydrocarbon (C2-10); m = 0-3 integer, k = 0 or 1; Ar = Ar1R1C(R3)(Ar2C(R3):C(R4))nAr3- and Ar1CC(Ar2CC)nAr3- [Ar1 = Ph, monovalent polycyclic aroms. hydrocarbon, etc.; Ar2-4 = phenylene, divalent polycyclic aromatic hydrocarbon, etc.; and R1-4 = H, alkyl, cyano, etc.; n = 0-10 integer]; p = 5-5,000 integer].
 IT 651048-27-0 651048-28-1 651048-31-6
 RL: DEV (Device component use); USES (Uses)
 (charge transporting material for organic electroluminescent device)
 RN 651048-27-0 CAPLUS
 CN Poly[[[4-(2-phenylethenyl)phenyl]imino][1,1'-biphenyl]-4,4'-diyl[[4-(2-phenylethenyl)phenyl]imino]-1,4-phenylene-1,2-ethanediyl-1,4-phenylene] (9CI) (CA INDEX NAME)

L30 ANSWER 54 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

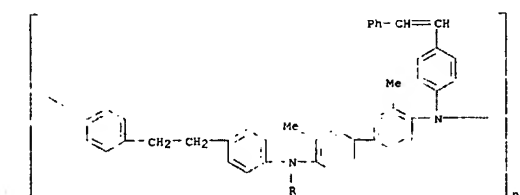


RN 651048-28-1 CAPLUS
 CN Poly[[[4-(phenylethynyl)phenyl]imino][1,1'-biphenyl]-4,4'-diyl[[4-(phenylethynyl)phenyl]imino]-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



RN 651048-31-6 CAPLUS
 CN Poly[[[4-(2-phenylethenyl)phenyl]imino][3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl][[4-(2-phenylethenyl)phenyl]imino]-1,4-phenylene-1,2-ethanediyl-1,4-phenylene] (9CI) (CA INDEX NAME)

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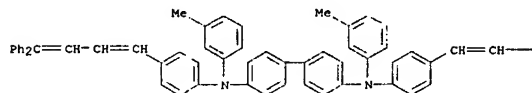


L30 ANSWER 55 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:57803 CAPLUS
 DOCUMENT NUMBER: 140:102000
 TITLE: Electrophotographic apparatus, process cartridge, and image formation
 INVENTOR(S): Yoshizawa, Hideo; Kitani, Tomoe
 PATENT ASSIGNEE(S): Konica Minolta Holdings Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 46 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004020805	A2	20040122	JP 2002-174127	20020614
US 2006029878	A1	20060209	US 2004-912884	20040806
PRIORITY APPLN. INFO.:			JP 2002-174127	A 20020614

OTHER SOURCE(S): MARPAT 140:102000

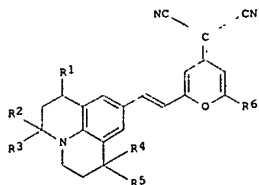
AB In the apparatus comprising a photoreceptor, and charging, exposing, developing, transferring devices, the photoreceptor contains triphenylamine compound as a charge-transporting agent, and aromatic volatile compound content in the toner is 5-30 ppm (measured by head space method).
 Image forming method and the process cartridge using the photoreceptor and the toner are also claimed. Deterioration of the photoreceptor is prevented even under high temperature and moisture conditions, and high quality images are obtained in long time use.
 IT 197234-73-4
 RL: DEV (Device component use); USES (Uses)
 (electrophotog. image formation using photoreceptor containing triphenylamine charge-transporting agent)
 RN 197234-73-4 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-(4,4-diphenyl-1,3-butadienyl)phenyl]-N,N'-bis(3-methylphenyl)- (9CI) (CA INDEX NAME)



L30 ANSWER 56 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2003:757138 CAPLUS
 DOCUMENT NUMBER: 139:283122
 TITLE: Efficient organic electroluminescent devices with red fluorescent dopants
 INVENTOR(S): Huang, Wen-yao; Chang, Min-jong; Huang, Wen-chin
 PATENT ASSIGNEE(S): E-Ray Optoelectronics Technology Co., Ltd., Taiwan
 SOURCE: U.S. Pat. Appl. Publ., 29 pp.
 CODEN: USXKCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003180574	A1	20030925	US 2003-348502	20030120
US 6838194	B2	20050104		
TW 536924	B	20030611	TW 2002-91103078	20020222
PRIORITY APPLN. INFO.:			TW 2002-91103078	A 20020222

OTHER SOURCE(S): MARPAT 139:283122
 GI

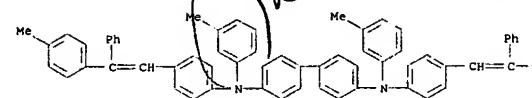


AB An organic electroluminescent device is described comprising, in sequence, a glass substrate, an anode layer, a hole-injecting layer, a hole-transporting layer, a luminescent layer, an electron-transporting layer, an electron-injecting layer and a cathode layer, wherein the luminescent layer is doped with a guest fluorescent doping material and the guest fluorescent doping material for the luminescent layer comprises a compound according to I wherein R1, R2, R3, R4, R5, and R6 each independently represents a linear or branched aliphatic group having C1-C10
 or an aromatic group having 5-20 C atoms.
 IT 606125-97-7 606125-98-8
 RL: DEV (Device component use); USES (Uses)
 (hole transporting layer: efficient organic electroluminescent devices with novel red fluorescent dopants)
 RN 606125-97-7 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(3-methylphenyl)-N,N'-bis[4-(4-methylphenyl)-2-phenylethenyl]phenyl- (9CI) (CA INDEX NAME)

L30 ANSWER 55 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
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—CH=CPh₂

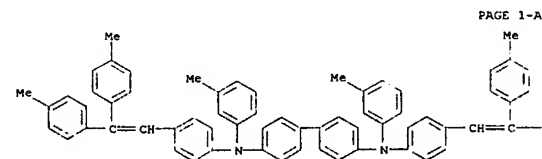
L30 ANSWER 56 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
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RN 606125-98-8 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-(2,2-bis(4-methylphenyl)ethenyl)phenyl]-N,N'-bis(3-methylphenyl)- (9CI) (CA INDEX NAME)



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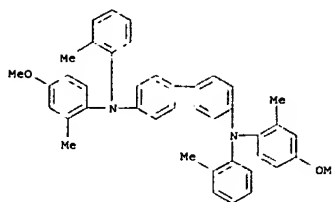


REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
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L30 ANSWER 57 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:651204 CAPLUS
 DOCUMENT NUMBER: 139:395560
 TITLE: Optical limiting in the visible range: molecular engineering around N4,N4'-bis(4-methoxyphenyl)-N4,N4'-diphenyl-4,4'-diaminobiphenyl
 AUTHOR(S): Anemian, Remi; Morel, Yannick; Baldeck, Patrice L.; Paci, Barbara; Kretsche, Kevin; Nunzi, Jean-Michel; Andraud, Chantal
 CORPORATE SOURCE: Laboratoire de Chimie, ENS-Lyon and CNRS, Lyon, 69364, Fr.
 SOURCE: Journal of Materials Chemistry (2003), 13(9), 2157-2163
 CODEN: JMACEP; ISSN: 0959-9428
 PUBLISHER: Royal Society of Chemistry
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 139:395560
 AB The authors describe the synthesis and nonlinear absorption properties of triarylamine derivs. Six mols. were synthesized by using a double Ullmann coupling procedure. UV-visible absorption spectra show the excellent transparency of these triarylamine derivs. in the visible range (cut-off λ 420 nm). Nonlinear absorption measurements show a broadband nonlinear absorption range extending between 450-650 nm with an optimized efficiency for a planar conjugated system (9,9-diethyl-N,N'-bis(4-methoxyphenyl)-N,N'-diphenyl-9H-fluorene-2,7-diamine) or a hindered donor group (N,N'-bis(4-methoxy-2-methylphenyl)-N,N'-bis(2-methylphenyl)(1,1'-biphenyl)-4,4'-diamine). These data were interpreted by a two step three-photon absorption scheme: a TPA process followed by an S1 \rightarrow S_n ESA step; the product of both spectra is equal, in good agreement with nonlinear absorption spectra, leading to different mol. engineering approaches for optimization of these features in the visible range through TPA and/or ESA properties.
 IT 307529-82-4P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (three photon and nonlinear absorption; optical limiting in visible range and mol. engineering around N4,N4'-bis(4-methoxyphenyl)-N4,N4'-diphenyl-4,4'-diaminobiphenyl)
 RN 307529-82-4 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(4-methoxy-2-methylphenyl)-N,N'-bis(2-methylphenyl)- (9CI) (CA INDEX NAME)

L30 ANSWER 57 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L30 ANSWER 58 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

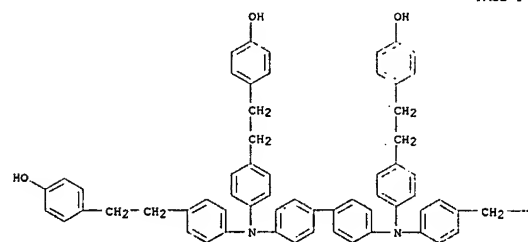
ACCESSION NUMBER: 2003:488603 CAPLUS
 DOCUMENT NUMBER: 139:44211
 TITLE: Phenolic compound, resol resin, cured products thereof, and their use in electrophotographic apparatus
 INVENTOR(S): Nakata, Kouichi; Morikawa, Yosuke; Ikezue, Tatsuya; Yoshimura, Kimihiro; Tanaka, Daisuke
 PATENT ASSIGNEE(S): Canon Kabushiki Kaisha, Japan
 SOURCE: Eur. Pat. Appl., 70 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1321456	A2	20030625	EP 2002-28523	20021219
EP 1321456	A3	20051207		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
US 2003175603	A1	20030918	US 2002-321643	20021218
US 6913862	B2	20050705		
CN 1430106	A	20030716	CN 2002-157052	20021220
JP 2003246771	A2	20030902	JP 2002-369713	20021220
			JP 2001-389240	A 20011221

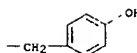
PRIORITY APPLN. INFO.:
 OTHER SOURCE(S): MARPAT 139:44211
 AB Title phenolic compound is characterized by having a plurality of substituted hydroxyphenyl groups and charge-transportable structure, where the substituted hydroxyphenyl groups have at least one hydroxymethyl group. A resol resin with charge-transportable structure is obtained by allowing the phenolic compound to react with formaldehyde in the presence of a basic catalyst. Also disclosed are a cured product and an electrophotog. photosensitive member which make use of the above, and a process cartridge and an electrophotog. apparatus which have the electrophotog. photosensitive member.
 IT 543742-78-5P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (resol resin with charge-transportable structure for electrophotog. apparatus)
 RN 543742-78-5 CAPLUS
 CN Formaldehyde, polymer with 4,4',4'',4'''-[[[1,1'-biphenyl]-4,4'-diylbis[nitrilobis(4,1-phenylene-2,1-ethanediy)]]]tetrakis[phenol] (9CI) (CA INDEX NAME)
 CM 1
 CRN 543742-77-4
 CMF C68 H60 N2 O4

L30 ANSWER 58 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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CM 2

CRN 50-00-0
CMF C H2 O

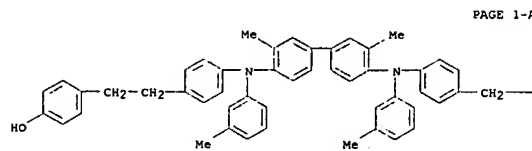
H2C=O

L30 ANSWER 59 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2003:241860 CAPLUS
 DOCUMENT NUMBER: 138:262672
 TITLE: Electrophotographic photoconductor for process cartridge and electrophotographic apparatus
 INVENTOR(S): Li, Hongguo; Nagai, Kazukiyo; Sasaki, Masaomi; Kawamura, Shinichi; Suzuki, Yasuo; Tamoto, Nozomu; Tanaka, Kawori
 PATENT ASSIGNEE(S): Ricoh Company, Ltd., Japan
 SOURCE: U.S. Pat. Appl. Publ., 60 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003059695	A1	20030327	US 2002-175799	20020621
US 6939651	B2	20050906		
JP 2003098714	A2	20030404	JP 2001-289117	20010921
JP 2003098710	A2	20030404	JP 2001-290358	20010925
JP 2003202686	A2	20030718	JP 2002-175616	20020617
PRIORITY APPLN. INFO.:			JP 2001-187869	A 20010621
			JP 2001-289117	A 20010921
			JP 2001-290358	A 20010925
			JP 2001-328629	A 20011026
			JP 2002-175616	A 20020617

AB An electrophotog. photoconductor comprises at least an electroconductive support and a photoconductive layer which is formed on said electroconductive support, the outermost layer of the photoconductor contains particles comprising a polyorganosiloxane-containing phase which contains polyorganosiloxane and an organic polymer-containing phase which contains organic polymer without silicon and has a polyorganosiloxane content which is less than the polyorganosiloxane-containing phase, each phase being exposed at the top surface of the photoconductor.
 IT 502841-36-3
 RL: TEM (Technical or engineered material use); USES (Uses) (charge transport material; electrophotog. photoconductor for process cartridge and electrophotog. apparatus containing)
 RN 502841-36-3 CAPLUS
 CN Carbonic acid, polymer with 4,4'-[(3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)bis[[3-methylphenyl]imino]-4,1-phenylene-2,1-ethanediyl]]bis[phenol] (9CI) (CA INDEX NAME)
 CM 1
 CRN 454703-88-9

L30 ANSWER 59 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 CMF C56 H52 N2 O2



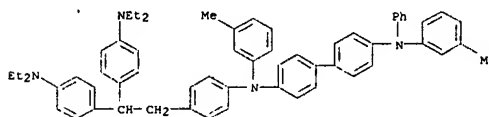
REFERENCE COUNT: 96 THERE ARE 96 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 60 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2003:201565 CAPLUS
 DOCUMENT NUMBER: 138:245532
 TITLE: Electrophotographic photoreceptor, and image forming method, image forming apparatus and process cartridge therefor using the photoreceptor
 INVENTOR(S): Ikegami, Takaaki; Suzuki, Yasuo; Shimada, Tomoyuki; Tamoto, Nozomu; Kami, Hidetoshi
 PATENT ASSIGNEE(S): Ricoh Company, Ltd., Japan
 SOURCE: Eur. Pat. Appl., 84 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1291723	A2	20030312	EP 2002-20005	20020905
EP 1291723	A3	20030806		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
JP 200316063	A2	20031106	JP 2002-188643	20020627
JP 3568518	B2	20040922		
CN 1405640	A	20030326	CN 2002-131849	20020906
US 2003194627	A1	20031016	US 2002-235961	20020906
US 6861188	B2	20050301		
JP 2004062131	A2	20040226	JP 2002-313111	20021028
PRIORITY APPLN. INFO.:			JP 2001-271060	A 20010906
			JP 2001-338194	A 20011102
			JP 2001-367085	A 20011130
			JP 2002-48616	A 20020225
			JP 2002-54889	A 20020228
			JP 2002-54911	A 20020228
			JP 2002-163547	A 20020604
			JP 2002-188643	A 20020627

OTHER SOURCE(S): MARPAT 138:245532
 AB The present invention relates to an electrophotog. photoreceptor including at least an electroconductive substrate; and a photosensitive layer located overlying the electroconductive substrate, wherein the photosensitive layer comprises an amino compound. The present invention provides an electrophotog. photoreceptor having high durability against repeated use for a long time, preventing deterioration of image d. and blurred images and stably producing high quality images.
 IT 501367-88-0
 RL: TEM (Technical or engineered material use); USES (Uses) (amino compound; electrophotog. photoreceptor for image forming method and image forming apparatus and process cartridge containing)
 RN 501367-88-0 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N-[4-[2,2-bis[4-(diethylamino)phenyl]ethyl]phenyl]-N,N'-bis[3-methylphenyl]-N'-phenyl-

L30 ANSWER 60 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 (9CI) (CA INDEX NAME)



L30 ANSWER 61 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2003:200756 CAPLUS
 DOCUMENT NUMBER: 138:245326
 TITLE: Organic thin film electroluminescent device using heat-resistant aromatic polycarbonate
 INVENTOR(S): Sasaki, Masaomi; Nagai, Kazukiyo; Lee, Hung Guo; Kawamura, Shinichi; Suzuka, Susumu; Morooka, Katsuhiro
 PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan; Hodogaya Chemical Co., Ltd.
 SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003077668	A2	20030314	JP 2001-263781	20010831
PRIORITY APPLN. INFO.			JP 2001-263781	20010831

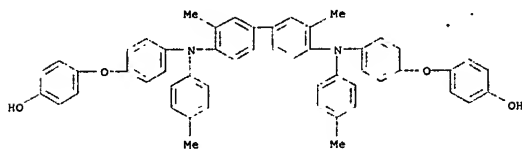
AB The invention refers to an organic thin film electroluminescent device comprising heat resistant aromatic polycarbonate - OAr1Z1Ar2NAr3(ZNAr3)NAr2Z1Ar1OC(O)- [Ar1,2 = (un)substituted arylene; Ar3 = (un)substituted aryl; Z = arylene or Ar4ZaAr4-; Ar4 = (un)substituted arylene; Za = single bond, O, S or alkylene; Z1 = O or S; n = 0, 1] as an electron carrier material.
 359691-36-4

IT RL: DEV (Device component use); USES (Uses)
 (organic thin film electroluminescent device using heat-resistant aromatic polycarbonate)

RN 359691-36-4 CAPLUS
 CN Phenol, 4,4'-[(3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)bis[(4-methylphenyl)imino]-4,1-phenyleneoxy]]bis-, polymer with bis(trichloromethyl) carbonate and 4,4'-(1-methylethylidene)bis[2-methylphenol] (9CI) (CA INDEX NAME)

CM 1

CRN 359690-58-7
 CMF C52 H44 N2 O4



L30 ANSWER 62 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2003:200755 CAPLUS
 DOCUMENT NUMBER: 138:245325
 TITLE: Organic thin film electroluminescent device using heat-resistant aromatic polycarbonate
 INVENTOR(S): Sasaki, Masaomi; Nagai, Kazukiyo; Ki, Hung Guo; Kawamura, Shinichi; Suzuka, Susumu; Morooka, Katsuhiro
 PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan; Hodogaya Chemical Co., Ltd.
 SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

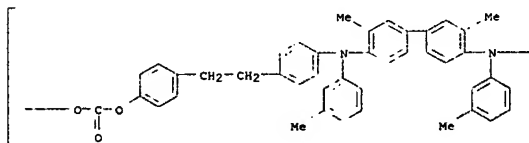
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003077667	A2	20030314	JP 2001-263645	20010831
PRIORITY APPLN. INFO.			JP 2001-263645	20010831

AB The invention refers to an organic thin film electroluminescent device comprising heat resistant aromatic polycarbonate - OAr1R2Ar3(ZNAr3)NAr2R'Ar1OC(O)- [Ar1,2 = (un)substituted arylene; Ar3 = (un)substituted aryl; Z = arylene or Ar4ZaAr4-; Ar4 = (un)substituted arylene; Za = single bond, O, S or alkylene; R,R' = straight chain or branched alkylene; n = 0, 1] as an electron carrier material.
 454704-04-2 454704-09-7

IT RL: DEV (Device component use); USES (Uses)
 (organic thin film electroluminescent device using heat-resistant aromatic polycarbonate)

RN 454704-04-2 CAPLUS
 CN Poly[oxybis(4-methylphenyl)-1,4-phenylene-1,2-ethanediyl-1,4-phenylene[(3-methylphenyl)imino]-(3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)]bis[(3-methylphenyl)imino]-1,4-phenylene-1,2-ethanediyl-1,4-phenylene (9CI)
 (CA INDEX NAME)

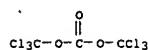
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L30 ANSWER 61 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

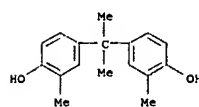
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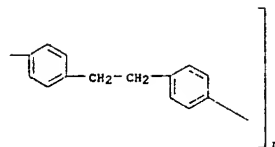
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CRN 79-97-0
 CMF C17 H20 O2



L30 ANSWER 62 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

PAGE 1-B

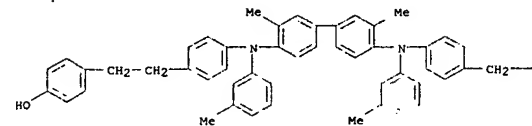


RN 454704-09-7 CAPLUS
 CN 2-Propanone, 1,1,1,3,3,3-hexachloro-, polymer with 4,4'-cyclohexylidenebis[phenol] and 4,4'-[(3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)bis[(3-methylphenyl)imino]-4,1-phenylene-2,1-ethanediyl]]bis[phenol] (9CI) (CA INDEX NAME)

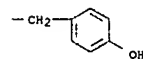
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CRN 454703-88-9
 CMF C56 H52 N2 O2

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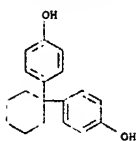
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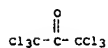
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CRN 843-55-0
 CMF C18 H20 O2

L30 ANSWER 62 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



CM 3

CRN 116-16-5
CMF C3 C16 O

L30 ANSWER 63 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:49087 CAPLUS
DOCUMENT NUMBER: 138:392561TITLE: Photo-physical and lasing characterization of neat films of 4-methyl-TPD and of an alternating copolymer of 4-methyl-TPD with MEH-PPV
AUTHOR(S): Philip, R.; Holzer, W.; Penzkofer, A.; Tillmann, H.; Horhold, H.-H.CORPORATE SOURCE: Institut II--Experimentelle und Angewandte Physik, Universität Regensburg, Regensburg, D-93040, Germany
SOURCE: Synthetic Metals (2003), 132(3), 297-308
CODEN: SYMEDZ; ISSN: 0379-6779

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Wave-guided traveling wave lasing, i.e. amplification of spontaneous emission in a waveguide, was studied on neat films of the triphenylamine dimer 4-methyl-TPD (N,N'-bis(4-methylphenyl)-N,N'-diphenylbenzidine) and an alternating copolymer with MEH-PPV assigned as TPD(4M)-MEH-P-PPV. The solution processable polymer was prepared via the polycondensation route. Laser action is achieved by transversally pumping neat films on glass substrates with picosecond excitation pulses (wavelength 347.15 nm, duration 35 ps). Lasing occurs around 422 nm for 4-methyl-TPD and around 544 nm for TPD(4M)-MEH-P-PPV. Below laser threshold leaky mode emission into the substrate along the film/surface interface is reported for 4-methyl-TPD. The optical constants (absorption spectra and refractive index spectra), the absorption cross-section spectra, fluorescence

quantum distributions, fluorescence quantum yields, and fluorescence lifetimes of the samples are determined for photo-phys. characterization. The laser performance and the photo-phys. parameters of 4-methyl-TPD are compared with the mol. 3-methyl-TPD and the nonconjugated polymer poly-TPD(4M)-DPX which is built up of 4-methyl-TPD and u,u'-diphenylxylylene units. The parameters of TPD(4M)-MEH-P-PPV are compared with the parameters of TPD(4M)-MEH-PPV and other alternating copolymer of 4-methyl-TPD with MEH-PPV. The synthesis details for TPD(4M)-MEH-PPV and TPD(4M)-MEH-P-PPV are given.

IT 391257-54-8

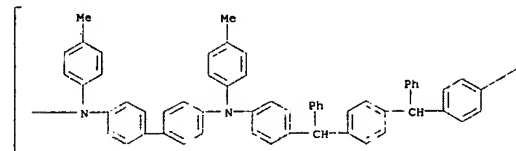
RL: PRP (Properties)
(photo-phys. and lasing characterization of neat films of 4-Me-TPD and of an alternating copolymer of 4-Me-TPD with MEH-PPV)

RN 391257-54-8 CAPLUS

CN Poly[[(4-methylphenyl)imino]([1,1'-biphenyl]-4,4'-diyl)[(4-methylphenyl)imino]-1,4-phenylene(phenylmethylen)-1,4-phenylene(phenylmethylen)-1,4-phenylene] (9CI) (CA INDEX NAME)

L30 ANSWER 63 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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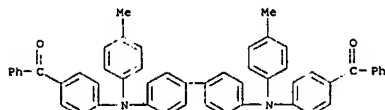
IT 525588-70-9P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(photo-phys. and lasing characterization of neat films of 4-Me-TPD and of an alternating copolymer of 4-Me-TPD with MEH-PPV)

RN 525588-70-9 CAPLUS

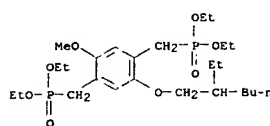
CN Phosphonic acid, [[2-[(2-ethylhexyloxy)-5-methoxy-1,4-phenylene]bis(methylene)]bis-, tetraethyl ester, polymer with [(1,1'-biphenyl)-4,4'-diylbis[(4-methylphenyl)imino]-4,1-phenylene]]bis(phenylmethanone) (9CI) (CA INDEX NAME)

CM 1

CRN 525588-69-6
CMF C52 H40 N2 O2

L30 ANSWER 63 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

CM 2

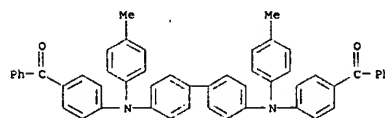
CRN 181307-48-2
CMF C25 H46 O8 P2

IT 525588-69-6

RL: RCT (Reactant); RACT (Reactant or reagent)
(photo-phys. and lasing characterization of neat films of 4-Me-TPD and of an alternating copolymer of 4-Me-TPD with MEH-PPV)

RN 525588-69-6 CAPLUS

CN Methanone, [(1,1'-biphenyl)-4,4'-diylbis[(4-methylphenyl)imino]-4,1-phenylene]]bis(phenyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 70 THERE ARE 70 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L30 ANSWER 64 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2002:727077 CAPLUS
 DOCUMENT NUMBER: 137:270384
 TITLE: Photoconductive arylamine composition and its use for electrophotographic photoreceptor with high sensitivity and durability
 INVENTOR(S): Mitsumori, Mitsuyuki; Sato, Chiyoko; Ida, Kazutaka
 PATENT ASSIGNEE(S): Mitsubishi Chemical Corp., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

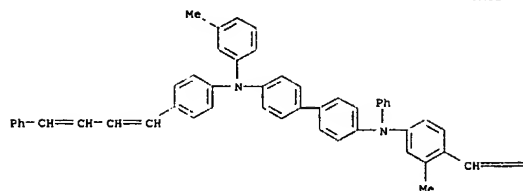
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002275135	A2	20020925	JP 2001-80303	20010321

PRIORITY APPLN. INFO.: JP 2001-80303 20010321

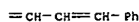
OTHER SOURCE(S): MARPAT 137:270384
 AB Title composition contains R1R2C:CH(CH:CH)sG[(CH:CH)tCH:CR3R4]n [G = 2- to 4-valent arylamine residue; n = 1-3; s, t = 0-4; R1-R4 = H, (un)substituted alkyl, aryl; when s = 0, then R1 = H; when t = 0, then R3 = H] with (E)-isomer content ≥50% and having no C2 or C6 axis of symmetry. Also claimed is an electrophotog. photoreceptor containing the composition (and oxytitanium phthalocyanine) in its photoconductive layer. The arylamine composition shows good solubility in a coating solution, good compatibility with a binder, and a low residual potential.
 IT 461647-63-2P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (preparation of cinnamyl-modified asym. arylamines for electrophotog. photoreceptors with high sensitivity and durability)
 RN 461647-63-2 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine,
 N-(3-methylphenyl)-N'-[3-methyl-4-(4-phenyl-1,3-butadienyl)phenyl]-N'-phenyl-N-[4-(4-phenyl-1,3-butadienyl)phenyl]- (9CI) (CA INDEX NAME)

L30 ANSWER 64 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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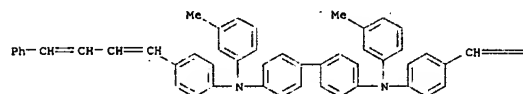


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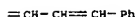
IT 197234-75-6
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of cinnamyl-modified asym. arylamines for electrophotog. photoreceptors with high sensitivity and durability)
 RN 197234-75-6 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(3-methylphenyl)-N,N'-bis[4-(4-phenyl-1,3-butadienyl)phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



L30 ANSWER 64 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

PAGE 1-B

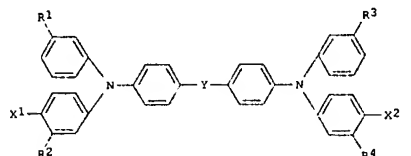


L30 ANSWER 65 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2002:727076 CAPLUS
 DOCUMENT NUMBER: 137:270383
 TITLE: Arylamine composition and electrophotographic photoreceptor using it
 INVENTOR(S): Mitsumori, Mitsuyuki; Sato, Chiyoko; Ida, Kazutaka
 PATENT ASSIGNEE(S): Mitsubishi Chemical Corp., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002275133	A2	20020925	JP 2001-72733	20010314

PRIORITY APPLN. INFO.: JP 2001-72733 20010314

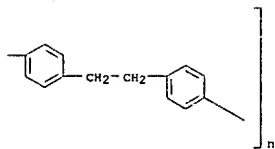
OTHER SOURCE(S): MARPAT 137:270383
 GI



AB The composition contains arylamine I [R1 = R3 = H; R2 = R4 = Me; benzene rings may have substituents: Y = single bond, divalent organic group; X1, X2 = (CH:CH)sCH:CR5R6 (E configuration content ≥40%); s = 0-4; R5, R6 = H, (un)substituted alkyl, aryl] (1a), I (R1 = R4 = H; R2 = R3 = Me; Y, X1, X2 = same as above) (1b), and I (R1 = R3 = Me; R2 = R4 = H; Y, X1, X2 = same as above) (1c) at molar ratio of 1a/1b 0.5-5 and 1b/1c 1.0-10. The composition shows improved stability in solution and provides a electrophotog. photoreceptor with high sensitivity and durability.
 IT 197234-75-6P 461647-63-2P
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (arylamine composition for electrophotog. photoreceptor)
 RN 197234-75-6 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(3-methylphenyl)-N,N'-bis[4-(4-phenyl-1,3-butadienyl)phenyl]- (9CI) (CA INDEX NAME)

L30 ANSWER 66 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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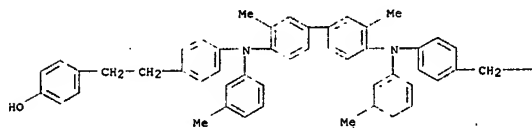


RN 454704-09-7 CAPLUS
 CN 2-Propanone, 1,1,1,3,3,3-hexachloro-, polymer with 4,4'-cyclohexylidenebis(phenol) and 4,4'-[3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl]bis[[(3-methylphenyl)imino]-4,1-phenylene-2,1-ethanediyl]]bis(phenol) (9CI) (CA INDEX NAME)

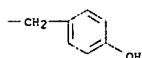
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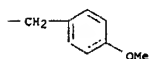
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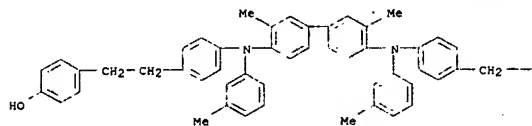
L30 ANSWER 66 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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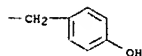


RN 454703-88-9 CAPLUS
 CN Phenol, 4,4'-[3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl]bis[[(3-methylphenyl)imino]-4,1-phenylene-2,1-ethanediyl]]bis- (9CI) (CA INDEX NAME)

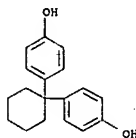
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PAGE 1-B

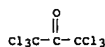


L30 ANSWER 66 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
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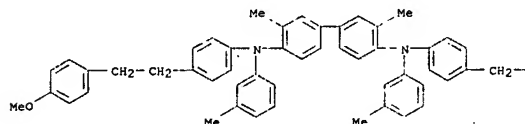
CM 3

CRN 116-16-5
 CMF C3 C16 O



IT 454703-87-8P 454703-88-9P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (triarylamine structure-containing diphenols and their aromatic polycarbonates for electrophotog. photoreceptors)
 RN 454703-87-8 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-[2-(4-methoxyphenyl)ethyl]phenyl]-3,3'-dimethyl-N,N'-bis(3-methylphenyl)- (9CI) (CA INDEX NAME)

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L30 ANSWER 67 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:205159 CAPLUS

DOCUMENT NUMBER: 136:254358

TITLE: Aromatic amine polymer charge-transporting materials, their manufacture, and electroluminescent devices
 INVENTOR(S): Sakaki, Yuichi; Sato, Hisaya; Sekine, Tokumasa; Kai, Teruhiko; Mori, Takahiro
 PATENT ASSIGNEE(S): Toppan Printing Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
 CODEN: JKOXAF

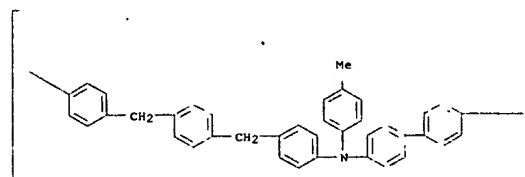
DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002080570	A2	20020319	JP 2000-271218	20000907
PRIORITY APPLN. INFO.:			JP 2000-271218	20000907

AB The charge-transporting materials comprise [(R1N(R3)R2)mR5R4R6]n or [(R1N(R3)R7N(R3)R2)mR5R4R6]n [R1, R2 = (un)substituted arylene; R3 = (un)substituted aryl; R4 = (un)substituted arylene or alkyl, fluorescent compound; R5, R6 = alkyl, carbonyl; R7 = (un)substituted arylene, alkyl]. The materials are manufactured by Friedel-Crafts reaction of aromatic tertiary amines and halogenated organic compds. Electroluminescent devices using the materials are also claimed. The materials show good hole-transporting property, high mech. strength, and good heat resistance.
 IT 404589-25-9P
 RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (manufacture of aromatic amine polymer charge-transporting materials for electroluminescent devices)

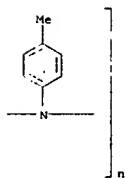
RN 404589-25-9 CAPLUS
 CN Poly[[(4-methylphenyl)imino][1,1'-biphenyl]-4,4'-diyl]bis[[(4-methylphenyl)imino]-1,4-phenylenemethylene-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

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L30 ANSWER 67 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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L30 ANSWER 68 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:205057 CAPLUS

DOCUMENT NUMBER: 136:239088

TITLE: Arylamine compound, its manufacture, and electrophotographic photoreceptor using it as charge-transporting agent

INVENTOR(S): Mitsumori, Mitsuyuki; Ida, Kazutaka; Ohashi, Toyoshi; Rin, Mamoru; Saita, Atsuro

PATENT ASSIGNEE(S): Mitsubishi Chemical Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 27 pp. CODEN: JKKXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002080432	A2	20020319	JP 2001-182746	20010618
PRIORITY APPL. INFO.:			JP 2000-195516	A 20000629

OTHER SOURCE(S): MARPAT 136:239088

AB The arylamine compound is shown as $[(CR3R4:CH(CH:CH)n)m(CR1R2:CH(CH:CH)p)G(CR3R4:CH(CH:CH)n)m(CR1R2:CH(CH:CH)p)]$ [G = divalent or tetravalent arylamine residue; R1-R4 = H, (substituted) alkyl, (substituted) aryl, (substituted) aralkyl, (substituted) heterocycle; n, p = 0-4; m = 0, 1] categorized into

C2 or C6 space groups with the Z configuration of the moiety linked to G 30-85% or $[(CR3R4:CH(CH:CH)n)mAr3][(CR1R2:CH(CH:CH)p)Ar2]NAr1QAr1N[(CR3R4:CH(CH:CH)n)mAr3][(CR1R2:CH(CH:CH)p)Ar2]$. The compound is manufactured by condensation of a CHO-containing precursor with a carbanion-containing precursor

at -20 to 20° preferably in a solvent with dipole moment 22.0 (calculated based on PM-3 parameter) followed by treatment with adsorbents at -20 to +20°. The electrophotog. photoreceptor contains the above compound as a charge-transporting agent. The compound shows good solubility and compatibility to polymeric binders and gives electrophotog. photoreceptors with low residual potential, high sensitivity, and improved durability in repeated use.

IT 403615-09-8P 403615-10-1P 403615-11-2P
 RL: DEV (Device component use); PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (manufacture of arylamine compound for charge-transporting agent in electrophotog. photoreceptor)

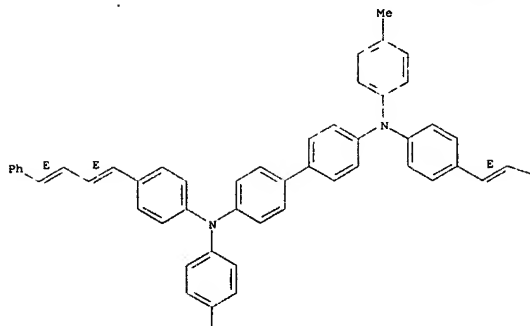
RN 403615-09-8 CAPLUS

CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(4-methylphenyl)-N,N'-bis[4-[(1E,3E)-4-phenyl-1,3-butadienyl]phenyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

L30 ANSWER 68 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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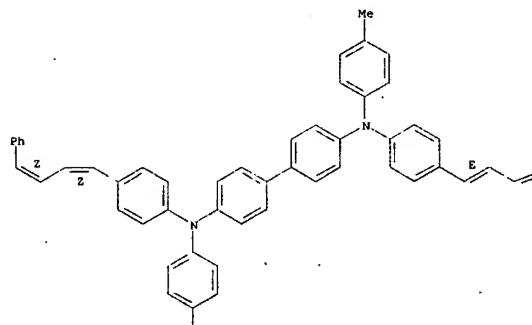


PAGE 1-B

L30 ANSWER 68 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

Double bond geometry as shown.

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X



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RN 403615-10-1 CAPLUS

CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(4-methylphenyl)-N,N'-bis[4-[(1E,3E)-4-phenyl-1,3-butadienyl]phenyl]-N,N'-bis[4-[(1E,3E)-4-phenyl-1,3-butadienyl]phenyl]- (9CI) (CA INDEX NAME)



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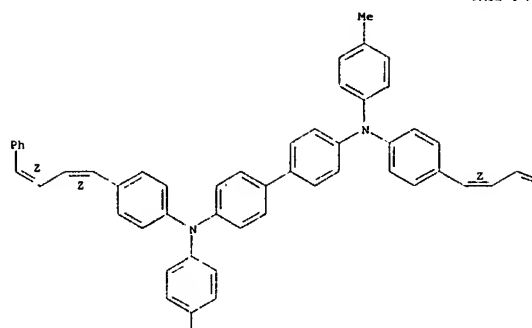
RN 403615-11-2 CAPLUS

CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(4-methylphenyl)-N,N'-bis[4-[(1E,3E)-4-phenyl-1,3-butadienyl]phenyl]- (9CI) (CA INDEX NAME)

L30 ANSWER 68 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
Double bond geometry as shown.

L30 ANSWER 68 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
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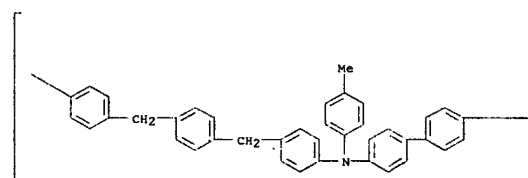
PAGE 1-B

9-

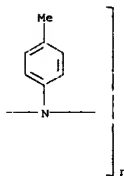
L30 ANSWER 69 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:142378 CAPLUS
DOCUMENT NUMBER: 136:402128
TITLE: Synthesis of charge transporting polymer containing TPD units using Friedel-Crafts reaction
AUTHOR(S): Mori, Takayoshi; Strzelec, Krzysztof; Sato, Hisaya
CORPORATE SOURCE: Department of Material Systems Engineering, Tokyo University of Agriculture and Technology, Koganei-shi, Tokyo, 184-8588, Japan
SOURCE: Synthetic Metals (2002), 126(2-3), 165-171
CODEN: SYMEDZ; ISSN: 0379-6779
PUBLISHER: Elsevier Science S.A.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB N,N'-bis(4-alkylphenyl)-N,N'-diphenylbenzidine (alkyl-TPD, alkyl = Me, Bu, t-Bu) was copolyd. with 1,4-bis(chloromethyl)benzene, 9,10-bis(chloromethyl)anthracene (BCA), 4,4'-bis(chloromethyl)-1,1'-biphenyl (BCP) or 2,7-bis(bromomethyl)-9,9-di-n-butylfluorene (BBF) via Friedel-Crafts reaction. The conjugated polymers containing triphenylamine units and anthracene and biphenyl and fluorene aromatic group chromophores were obtained in high yield and high mol. weight. TPD having two Me substituents showed higher reactivity and larger gel content than that having two Bu substituents. The structure of polymers was determined by 1H NMR spectroscopy. All polymers show two methylene signals from benzyl protons, which indicates that polymerization occurred at the para-position of Ph group and at the meta-position of the alkylphenyl group in TPD derivs. All polymers had almost the same oxidation potential as that of TPD itself. The polymer containing anthracene showed both oxidation and reduction peaks. The luminance of BTDP-BCA was higher than that of the TPD homopolymer due to enhanced transport of holes and electrons through the anthracene moieties. It is expected that the polymers can be used as hole transport material in EL devices.
IT 404589-25-9P, 1,4-Bis(chloromethyl)benzene-N,N'-diphenyl-N,N'-bis(4-methylphenyl)-benzidine copolymer, SRU 431942-04-0P, 4,4'-Bis(chloromethyl)-1,1'-biphenyl-N,N'-diphenyl-N,N'-bis(4-methylphenyl)-benzidine copolymer, SRU 431942-08-4P, 1,4-Bis(chloromethyl)benzene-N,N'-diphenyl-N,N'-bis(4-n-butylphenyl)-benzidine copolymer, SRU 431942-10-8P, 4,4'-Bis(chloromethyl)-1,1'-biphenyl-N,N'-diphenyl-N,N'-bis(4-n-butylphenyl)-benzidine copolymer, SRU 431942-14-2P, 1,4-Bis(chloromethyl)benzene-N,N'-diphenyl-N,N'-bis(4-t-butylphenyl)-benzidine copolymer, SRU 431942-18-6P, 4,4'-Bis(chloromethyl)-1,1'-biphenyl-N,N'-diphenyl-N,N'-bis(4-t-butylphenyl)-benzidine copolymer, SRU
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(synthesis of charge transporting polymer containing TPD units using Friedel-Crafts reaction)
RN 404589-25-9 CAPLUS
CN Poly([(4-methylphenyl)imino][1,1'-biphenyl]-4,4'-diyl[(4-methylphenyl)imino]-1,4-phenylenemethylene-1,4-phenylenemethylene-1,4-

L30 ANSWER 69 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
phenylene] (9CI) (CA INDEX NAME)

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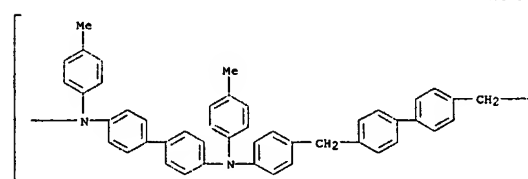


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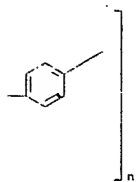
RN 431942-04-0 CAPLUS
CN Poly([(4-methylphenyl)imino][1,1'-biphenyl]-4,4'-diyl[(4-methylphenyl)imino]-1,4-phenylenemethylene[1,1'-biphenyl]-4,4'-diylmethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

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L30 ANSWER 69 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

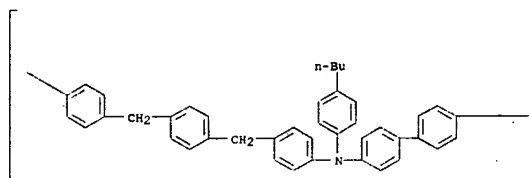
PAGE 1-B



RN 431942-08-4 CAPLUS

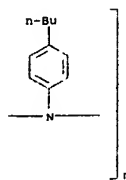
CN
Poly[[(4-butylphenyl)imino][1,1'-biphenyl]-4,4'-diyl[(4-butylphenyl)imino]-
1,4-phenylenemethylene-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA
INDEX NAME)

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L30 ANSWER 69 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

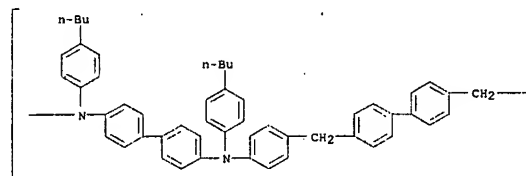
PAGE 1-B



RN 431942-10-8 CAPLUS

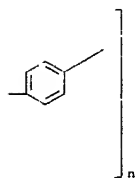
CN
Poly[[(4-butylphenyl)imino][1,1'-biphenyl]-4,4'-diyl[(4-butylphenyl)imino]-
1,4-phenylenemethylene[1,1'-biphenyl]-4,4'-diylmethylene-1,4-phenylene]
(9CI) (CA INDEX NAME)

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L30 ANSWER 69 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

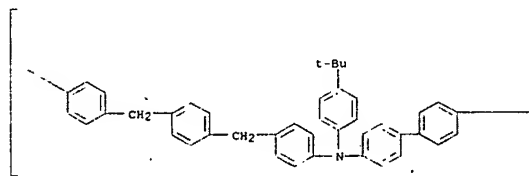
PAGE 1-B



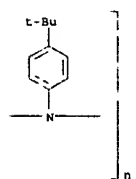
RN 431942-14-2 CAPLUS

CN
Poly[[(4-(1,1-dimethylethyl)phenyl)imino][1,1'-biphenyl]-4,4'-diyl[(4-(1,1-
dimethylethyl)phenyl)imino]-1,4-phenylenemethylene-1,4-phenylenemethylene-
1,4-phenylene] (9CI) (CA INDEX NAME)

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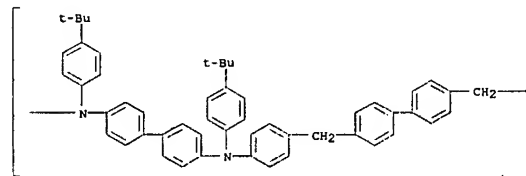


L30 ANSWER 69 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

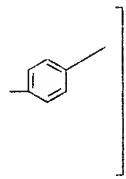
RN 431942-10-6 CAPLUS

CN
Poly[[(4-(1,1-dimethylethyl)phenyl)imino][1,1'-biphenyl]-4,4'-diyl[(4-(1,1-
dimethylethyl)phenyl)imino]-1,4-phenylenemethylene[1,1'-biphenyl]-4,4'-
diylmethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

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REFERENCE COUNT:
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FORMAT

14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR
RECORD. ALL CITATIONS AVAILABLE IN THE RE

L30 ANSWER 70 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2002:137165 CAPLUS
 DOCUMENT NUMBER: 137:176649
 TITLE: Photo-physical characterization and traveling-wave
 lasing of some TPD-based polymer neat films
 AUTHOR(S): Holzer, W.; Penzkofer, A.; Tillmann, H.; Raabe, D.;
 Horhold, H.-H.
 CORPORATE SOURCE: Institut II -Experimentelle und Angewandte Physik,
 Universität Regensburg, Regensburg, D-93053, Germany
 SOURCE: Optical Materials (Amsterdam, Netherlands) (2002),
 19(2), 283-294
 CODEN: OMATET; ISSN: 0925-3467
 PUBLISHER: Elsevier Science B.V.
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB Travelling-wave lasing (amplification of spontaneous emission) is
 reported
 for neat films of 5 red, green and blue emitting TPD-based polymers, the
 TPD-phenylenevinylene and the TPD-xylylene copolymers. Thin samples on
 glass substrates were fabricated by spin-coating and transversally pumped
 with ps excitation pulses ($\lambda = 347.15$ nm, duration 35 ps). Lasing
 occurs around 421, 536, 540, 571, and 618 nm with a line-width smaller
 than 10 nm. The threshold pump pulse energy densities are determined

and are
 60 $\mu\text{J}/\text{cm}^2$ for the blue emitting nonconjugated polymer
 (Poly-TPD(4M)-DPX) and 6-8 $\mu\text{J}/\text{cm}^2$ for the green and red emitting
 conjugated polymers TPD(4M)-MEH-PPV and TPD(4M)-MEH-M3EH-PPV. The laser
 output saturation at high excitation energy densities is studied. The

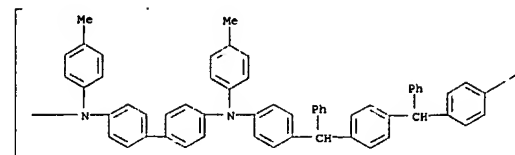
length
 of effective amplification of spontaneous emission is approx. 1 mm.
 Effective stimulated emission cross sections are derived from the pump
 pulse energy d. dependent spectral narrowing of the amplified emission
 signals. The optical consts. (absorption spectrum and refractive index
 spectrum) of the neat films are determined by reflection and transmission
 measurements. The absorption cross section spectra are extracted. The
 fluorescence quantum efficiencies and the fluorescence lifetimes are
 measured.

IT 391257-54-8
 RL: PRP (Properties)
 (photophys. characterization and traveling-wave lasing of neat films
 of)

RN 391257-54-8 CAPLUS
 CN Poly[[[4-methylphenyl]imino]([1,1'-biphenyl]-4,4'-diyl)[[4-
 methylphenyl]imino]-1,4-phenylene(phenylmethylene)-1,4-
 phenylene(phenylmethylene)-1,4-phenylene] (9CI) (CA INDEX NAME)

L30 ANSWER 70 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR
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 RECORD. ALL CITATIONS AVAILABLE IN THE RE
 FORMAT

L30 ANSWER 71 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2002:119607 CAPLUS
 DOCUMENT NUMBER: 136:191636
 TITLE: High-resolution electrophotography and its apparatus
 using photoreceptors with good toner releasability
 and
 abrasion resistance
 INVENTOR(S): Fujii, Akiteru; Nozomi, Mamoru; Ishikawa, Tomoko
 PATENT ASSIGNEE(S): Mitsubishi Chemical Corp., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 34 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002049164	A2	20020215	JP 2001-51558	20010227
PRIORITY APPLN. INFO.:			JP 2000-149259	A 20000522

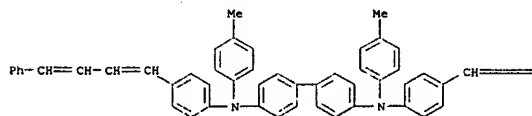
AB The electrophotog. uses a photoreceptor containing a charge generator of
 oxytitanium phthalocyanine with a clear X-ray (CuK α -ray) diffraction
 peak at Bragg angle 2 θ 3.3° and a charge transfer layer of
 polycarbonates, which comprise repeating units of OOCR1R2OOCO and
 O-p-C6H3R3CR3R4C6H3R5OOCO or O-p-C6H3R3CR3R4C6H3R5OOCO and
 OQC(C6H4R12)R11OOCO (R1-10, R12 = H, alkyl, R3-R4 and R7-R8 may form a
 ring; R11 = H, alkyl, aryl; Q = p-phenylene). It also uses

wax-containing
 toner with particle diameter 3-8 μm and circularity (definition given)
 0.9-1.

IT 197234-90-5
 RL: DEV (Device component use); USES (Uses)
 (charge transfer agent; high-resolution electrophotog. using
 photoreceptors with good toner releasability and abrasion resistance)

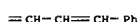
RN 197234-90-5 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(4-methylphenyl)-N,N'-bis[4-(4-
 phenyl-1,3-butadienyl)phenyl]- (9CI) (CA INDEX NAME)

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L30 ANSWER 71 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

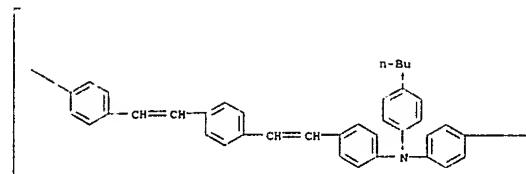
PAGE 1-B



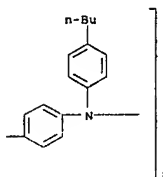
L30 ANSWER 72 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2002:96230 CAPLUS
 DOCUMENT NUMBER: 136:279953
 TITLE: Femtosecond Third-Order Optical Nonlinearity of Conjugated Polymers Consisting of Fluorene and Tetraphenylidiaminobiphenyl Units: Structure-Property Relationships
 AUTHOR(S): Zhan, Xiaowei; Liu, Yunqi; Zhu, Daoben; Huang, Wentao;
 CORPORATE SOURCE: Gong, Qihuang
 SOURCE: Center for Molecular Science Institute of Chemistry, Chinese Academy of Sciences, Beijing, 100080, Peop. Rep. China
 PUBLISHER: Journal of Physical Chemistry B (2002), 106(8), 1884-1888
 DOCUMENT TYPE: CODEN: JPCBPK; ISSN: 1089-5647
 LANGUAGE: American Chemical Society
 AB English
 Femtosecond time-resolved optical Kerr effect technique has been used to investigate the third-order nonlinear optical (NLO) properties of a series of conjugated polymers consisting of fluorene and/or tetraphenylidiaminobiphenyl (TPD) units designed to elucidate structure-property relationships for the microscopic second-order hyperpolarizability γ in polymeric materials. The γ per repeated unit of the series of polymers has off-resonant values at 830 nm in the range of 2.0×10^{-33} to 2.4×10^{-31} esu, demonstrating a large modulation of nonlinear optical response by simple structural variations. The γ values of alternative copolymers containing fluorene and TPD moieties are 2 orders of magnitude higher than the γ value of the homopolymer polyfluorene, revealing the vital role of the strong electron donor TPD in the NLO enhancement. The fluorene segment was found to result in 4-fold enhancement of γ in TPD-containing copolymers compared to p-phenylenevinylene segment, indicating that the planar rigid ring of fluorene is an efficient third-order NLO chromophore. No relationship between the magnitude of γ and the optical band gap was found. The large variation of γ value with mol. structure of these polymers can be explained by mol. exciton theory other than the band theory.
 IT 222310-67-0
 RL: PRP (Properties)
 (third-order optical nonlinearity of conjugated polymers consisting of fluorene and tetraphenylidiaminobiphenyl units)
 RN 222310-67-0 CAPLUS
 CN Poly([(4-butylphenyl)imino][1,1'-biphenyl]-4,4'-diyl[(4-butylphenyl)imino]-1,4-phenylene-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl-1,4-phenylene] (9CI) (CA INDEX NAME)

L30 ANSWER 72 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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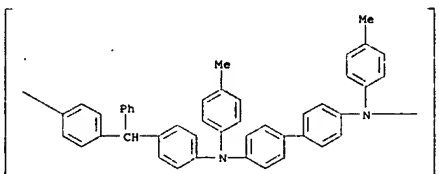
PAGE 1-B



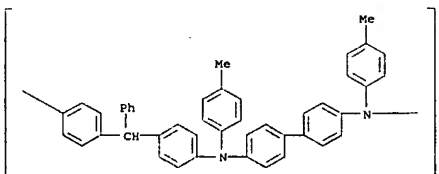
REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L30 ANSWER 73 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2002:88029 CAPLUS
 DOCUMENT NUMBER: 136:310259
 TITLE: Semiconducting polymers from triphenylamine derivatives-benzaldehyde polymers by oxidation with 2,3-dichloro-5,6-dicyano-1,4-benzoquinone (DDQ)
 AUTHOR(S): Wangwijit, Tidarat; Sato, Hisaya; Tantayanon, Supawan
 CORPORATE SOURCE: Department of Petrochemistry and Polymer Science, Faculty of Science, Chulalongkorn University, Bangkok, 10330, Thailand
 SOURCE: Polymers for Advanced Technologies (2002), 13(1), 25-32
 PUBLISHER: CODEN: PADTES; ISSN: 1042-7147
 DOCUMENT TYPE: John Wiley & Sons Ltd.
 LANGUAGE: English
 AB 4-Tolylidiphenylamine (TDPA) and N,N'-diphenyl-N,N'-bis(4-methylphenyl)-1,1'-biphenyl-4,4'-diamine (TPD), were reacted with benzaldehyde (BA) using p-toluenesulfonic acid as a catalyst to yield linear polymers. The polymers were reacted with 2,3-dichloro-5,6-dicyano-1,4-benzoquinone (DDQ) in THF (THF) at room temperature. ¹H-NMR showed that all the methine protons in the residue of BA were completely removed at the mole ratio of repeating unit: DDQ, 2:1. The resulting polymers showed good solubility in chloroform or THF. The reacted TDPA-BA and TPD-BA polymers gave new UV absorption peaks at 697.0 and 722.5 nm and showed reversible redox potentials about 0.994 and 1.021 V, resp. D.C. (d.c.) conductivity of the reacted polymers was in the range of 10⁻¹¹ S/cm, which is more than two orders higher than the unreacted polymers. The polymer showed pentad split ESR (ESR) signal, whose concentration was one in 670 or 230 repeating unit for TDPA-BA and TPD-BA polymers, resp.
 IT 412012-99-8 CAPLUS
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (preparation of semiconducting polymers by oxidation of triphenylamine derivative benzaldehyde copolymers with 2,3-dichloro-5,6-dicyano-1,4-benzoquinone)
 RN 412012-99-8 CAPLUS
 CN Poly([(4-methylphenyl)imino][1,1'-biphenyl]-4,4'-diyl[(4-methylphenyl)imino]-1,4-phenylene(phenylmethylene)-1,4-phenylene] (9CI) (CA INDEX NAME)

L30 ANSWER 73 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 412012-99-8 CAPLUS
 CN Poly([(4-methylphenyl)imino][1,1'-biphenyl]-4,4'-diyl[(4-methylphenyl)imino]-1,4-phenylene(phenylmethylene)-1,4-phenylene] (9CI) (CA INDEX NAME)



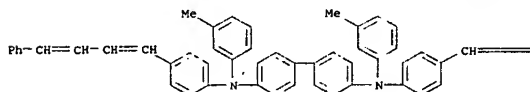
REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L30 ANSWER 74 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:796456 CAPLUS
DOCUMENT NUMBER: 135:350459
TITLE: Electrophotographic photoreceptors with high sensitivity and reduced photomemory and method for forming latent electrostatic images on them
INVENTOR(S): Nagao, Yuka; Makino, Kaname; Rin, Mamoru; Yagishita, Akihiko
PATENT ASSIGNEE(S): Mitsubishi Chemical Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JQXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001305762	A2	20011102	JP 2000-117799	20000419
JP 3785021	B2	20060614		
PRIORITY APPLN. INFO.:			JP 2000-117799	20000419

OTHER SOURCE(S): MARPAT 135:350459
AB The photoreceptors have photosensitive layers containing charge-generating materials (A), charge-transporting materials (B) satisfying $\mu\alpha$ cal 270Å and $P\alpha$ cal <1.8 D ($\mu\alpha$ cal, $P\alpha$ cal = polarizability and dipole moment, resp., calculated by semiempirical MO method), and compds. (C) showing 50% transmittance at a wavelength longer the wavelength at which B show 50% transmittance. Arylamines and hydrazones are preferably used as B and C, resp.
IT 197234-75-6
RI: DEV (Device, component use); USES (Uses)
(charge-transporting layer: electrophotog. photoreceptors containing arylamines and hydrazones with high sensitivity and reduced photomemory)
RN 197234-75-6 CAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[3-methylphenyl]-N,N'-bis[4-(4-phenyl-1,3-butadienyl)phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



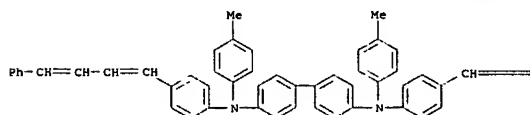
L30 ANSWER 75 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:760113 CAPLUS
DOCUMENT NUMBER: 135:325221
TITLE: Electrophotographic cartridge image-forming method and image-forming apparatus
INVENTOR(S): Ishikawa, Tomoko; Ando, Osamu; Nozomi, Mamoru; Fujii, Akiteru
PATENT ASSIGNEE(S): Mitsubishi Chemical Corporation, Japan
SOURCE: Eur. Pat. Appl., 53 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1146397	A1	20011017	EP 2001-109051	20010411
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 2002025184	A1	20020228	US 2001-829930	20010411
PRIORITY APPLN. INFO.:			JP 2000-110420	A 20000412

AB An image-forming apparatus comprises at least a photoreceptor, a toner and an exposure device, wherein the photoreceptor has a photosensitive layer containing oxytitanium phthalocyanine having a distinct diffraction peak at a Bragg angle ($2\theta \pm 0.2$) of 27.3° in the x-ray diffraction by CuK α -ray, and the toner has a volume average particle diameter (Dv) of 3-8 μ m and satisfies a relation of $1.0 \leq Dv/Dn \leq 1.3$ where Dv is the volume average particle diameter and Dn is the number average particle diameter

IT 197234-90-5
RI: TEM (Technical or engineered material use); USES (Uses)
(charge transport agent in electrophotog. photoreceptors)
RN 197234-90-5 CAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-methylphenyl]-N,N'-bis[4-(4-phenyl-1,3-butadienyl)phenyl]- (9CI) (CA INDEX NAME)

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L30 ANSWER 74 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
PAGE 1-B

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L30 ANSWER 75 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
PAGE 1-B

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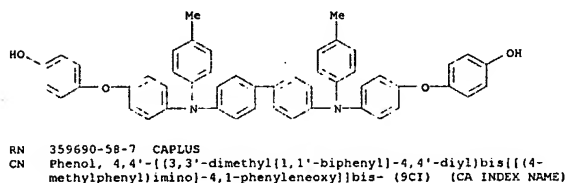
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
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L30 ANSWER 76 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2001:668202 CAPLUS
 DOCUMENT NUMBER: 135:233842
 TITLE: Aromatic polycarbonate resin used as charge-transferring compound in electrophotographic photoreceptor
 INVENTOR(S): Sasaki, Masaomi; Nagai, Kazukiyo; Li, Hung-guo; Kawamura, Shinichi; Suzuki, Susumu; Morooka, Katsuhiro
 PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan; Hodogaya Chemical Co., Ltd.
 SOURCE: Jpn. Kokai Tokkyo Koho, 24 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

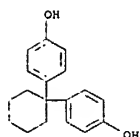
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001247525	A2	20010911	JP 2000-60722	20000306
PRIORITY APPLN. INFO.:			JP 2000-60722	20000306

OTHER SOURCE(S): MARPAT 135:233842
 AB The title aromatic polycarbonate resin for an electrophotog. photoreceptor is derived from diphenol compound
 HO-Ar1-O-Ar2-N(Ar3)-[Z-N(Ar3)]-n-Ar2-O-Ar1-OH (Ar1-2 = arylene; Ar3 = aryl; Z = arylene, arylene derivative; n = 0, 1).

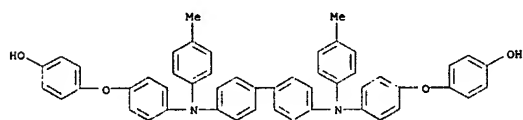
1). The poly carbonates provides the photoreceptor of the improved sensitivity and of the high durability.
 IT 359690-45-2P 359690-58-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (aromatic poly carbonate resin used as charge-transferring compound in electrophotog. photoreceptor)
 RN 359690-45-2 CAPLUS
 CN Phenol, 4,4'-[1,1'-biphenyl]-4,4'-diylbis[[(4-methylphenyl)imino]-4,1-phenyleneoxy]]bis- (9CI) (CA INDEX NAME)



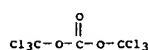
L30 ANSWER 76 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 CMF C18 H20 O2



RN 359691-20-6 CAPLUS
 CN Phenol, 4,4'-[1,1'-biphenyl]-4,4'-diylbis[[(4-methylphenyl)imino]-4,1-phenyleneoxy]]bis-, polymer with bis(trichloromethyl) carbonate and 4,4'-(1-methylethylidene)bis[2-methylphenol] (9CI) (CA INDEX NAME)
 CM 1
 CRN 359690-45-2
 CMF C50 H40 N2 O4

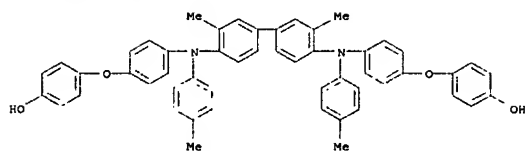


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 CRN 32315-10-9
 CMF C3 C16 O3

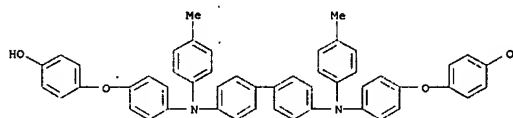


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 CRN 79-97-0
 CMF C17 H20 O2

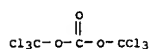
L30 ANSWER 76 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



IT 359691-16-0P 359691-20-6P 359691-36-4P
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (aromatic poly carbonate resin used as charge-transferring compound in electrophotog. photoreceptor)
 RN 359691-16-0 CAPLUS
 CN Phenol, 4,4'-[1,1'-biphenyl]-4,4'-diylbis[[(4-methylphenyl)imino]-4,1-phenyleneoxy]]bis-, polymer with bis(trichloromethyl) carbonate and 4,4'-cyclohexylidenebis[phenol] (9CI) (CA INDEX NAME)
 CM 1
 CRN 359690-45-2
 CMF C50 H40 N2 O4

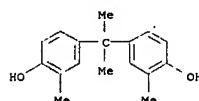


CM 2
 CRN 32315-10-9
 CMF C3 C16 O3

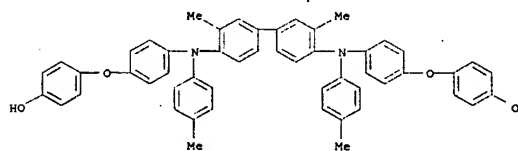


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 CRN 843-55-0

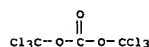
L30 ANSWER 76 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 359691-36-4 CAPLUS
 CN Phenol, 4,4'-[1,1'-biphenyl]-4,4'-diylbis[[(4-methylphenyl)imino]-4,1-phenyleneoxy]]bis-, polymer with bis(trichloromethyl) carbonate and 4,4'-(1-methylethylidene)bis[2-methylphenol] (9CI) (CA INDEX NAME)
 CM 1
 CRN 359690-58-7
 CMF C52 H44 N2 O4

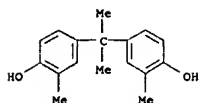


CM 2
 CRN 32315-10-9
 CMF C3 C16 O3



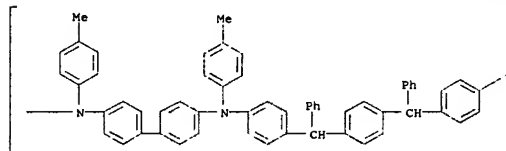
CM 3
 CRN 79-97-0
 CMF C17 H20 O2

L30 ANSWER 76 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



L30 ANSWER 77 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2001:633272 CAPLUS
 DOCUMENT NUMBER: 136:217293
 TITLE: Traveling-wave lasing of some triphenylamine-based polymers
 AUTHOR(S): Penzkofer, A.; Holzer, W.; Horhold, H.-H.; Tillmann, H.; Raabe, D.; Helbig, M.
 CORPORATE SOURCE: Institut II - Experimentelle und Angewandte Physik, Universität Regensburg, Regensburg, D-93053, Germany
 SOURCE: Proceedings of the International Conference on Lasers (2000), 23rd, 523-529
 CODEN: PICLDV; ISSN: 0190-4132
 PUBLISHER: STS Press
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB Traveling-wave lasing (amplified spontaneous emission, ASE) was measured for triphenylamine dimer (TPD), diphenylxylylene/phenylene-vinylene copolymers (TPD-DPX, TPD-PPV), and triphenylamine/phenylene-vinylene copolymers (TPA-PPV). Waveguiding neat films on glass substrates were transversally pumped with picosecond laser pulses (wavelength 347.15 nm, duration 35 ps). The lasing was identified by measuring the spectral narrowing, the temporal shortening and the laser threshold. The laser emission occurs at 420 nm to 620 nm and is characterized by narrow laser linewidth (<10 nm), low threshold pump pulse energy (60 nJ to 600 nJ), and gain length of the waveguiding films in the millimeter region.
 IT 391257-54-8
 RL: PAP (Properties)
 (traveling-wave lasing and amplification of spontaneous emission of triphenylamine-phenylenevinylene conjugated polymers)
 RN 391257-54-8 CAPLUS
 CN Poly[[(4-methylphenyl)imino][1,1'-biphenyl]-4,4'-diyl] [(4-methylphenyl)imino]-1,4-phenylene(phenylmethylene)-1,4-phenylene(phenylmethylene)-1,4-phenylene] (5CI) (CA INDEX NAME)

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L30 ANSWER 77 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

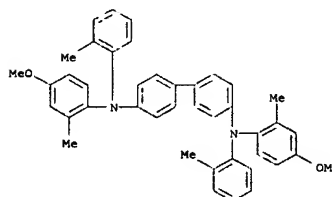
PAGE 1-B

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REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L30 ANSWER 78 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2001:425204 CAPLUS
 DOCUMENT NUMBER: 135:202484
 TITLE: Molecular engineering around diaminobiphenyls for optical limiting at visible wavelengths
 AUTHOR(S): Anemian, R.; Andraud, C.; Collet, A.; Nunzi, J.-M.; Morel, Y.; Baldeck, P. L.
 CORPORATE SOURCE: Ec. Norm. Sup. Lyon, Lab. Stereochim. Interactions Mol., UMR 5532, Lyon, 69364/07, Fr.
 SOURCE: MCLC S47, Section B: Nonlinear Optics (2000), 25(1-4), 145-151
 CODEN: MCLOEB; ISSN: 1058-7268
 PUBLISHER: Gordon & Breach Science Publishers
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB The authors have developed a mol. engineering strategy around the diaminobiphenyl 1 to design efficient nonlinear absorbers for optical limiting application in the visible range. Based on a photophysics engineering strategy, a significant improvement of efficiency is obtained by influencing the excited state dynamics. The role of the planarity of the conjugated system was also studied.
 IT 307529-82-4
 RL: DEV (Device component use); USES (Uses)
 (mol. engineering around diaminobiphenyls for optical limiting at visible wavelengths)
 RN 307529-82-4 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(4-methoxy-2-methylphenyl)-N,N'-bis(2-methylphenyl)- (9CI) (CA INDEX NAME)



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REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L30 ANSWER 79 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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PN 391257-48-0 CAPLUS
CN Poly[[(3-methylphenyl)imino]{1,1'-biphenyl}-4,4'-diyl{[3-
methylphenyl]imino}-1,4-phenylene-1,2-ethenediyl[2,5-bis{(2-
ethylhexyl)oxy}-1,4-phenylene)-1,2-ethenediyl-1,4-phenylene} (9CI) (CA
INDEX NAME)

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L30 ANSWER 79 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

L30 ANSWER 79 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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RN 391257-54-8 CAPLUS

CN Poly{[(4-methylphenyl)imino][1,1'-biphenyl]-4,4'-diyl{[(4-methylphenyl)imino]-1,4-phenylene(phenylmethylene)-1,4-phenylene(phenylmethylene)-1,4-phenylene} 9CI} (CA INDEX NAME)

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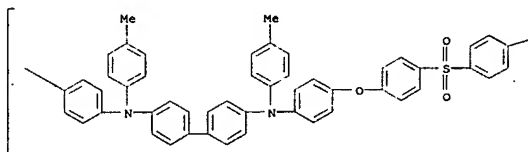
PAGE 1-B

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR
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Searched by Jason M. Nolan, Ph.D.

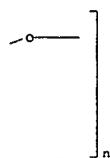
L30 ANSWER 80 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2001:400128 CAPLUS
 DOCUMENT NUMBER: 136:103121
 TITLE: Organic electroluminescent devices with polymer layer
 buffer
 AUTHOR(S): Sato, Yoshiharu; Ogata, Tomoyuki; Kido, Junji
 CORPORATE SOURCE: Yokohama Research Center, Mitsubishi Chemical Corp., Kamoshida, Aoba-ku, Yokohama, 227-8502, Japan
 SOURCE: Proceedings of SPIE-The International Society for Optical Engineering (2001), 4105(Organic Light-Emitting Materials and Devices IV), 134-142
 CODEN: PSISDG; ISSN: 0277-786X
 PUBLISHER: SPIE-The International Society for Optical Engineering
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB A new type of polymers poly(arylene ether sulfone)-containing and poly(arylene ether ketone)- containing tetraphenyl-benzidine , and also polymers with directly coupled tri-Ph amine units have been developed. When these polymers are mixed with strong acceptor , they indicated higher conductivity and facilitated hole injection from ITO to the hole transport layer. Spin-coating of such polymer from an organic solution on ITO was found to improve the surface roughness of ITO, resulting in reduced defects that cause elec. short circuit between ITO and cathode. These buffer materials lowered the operation voltage and improved the thermal stability of the device. After storage of 1,000 h at 85 °C, the device with polymer buffer showed no degradation in luminance and small increase of operation voltage. In comparison with CuPc buffer, it is clear that the doped polymer is superior in terms of both efficiency and thermal stability.
 IT 389104-45-4P 389104-48-7P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (organic electroluminescent devices with polymer buffer layer)
 RN 389104-45-4 CAPLUS
 CN Poly[oxy-1,4-phenylenesulfonyl-1,4-phenyleneoxy-1,4-phenylene[(4-methylphenyl)imino][1,1'-biphenyl]-4,4'-diyl[(4-methylphenyl)imino]-1,4-phenylene] (9CI) (CA INDEX NAME)

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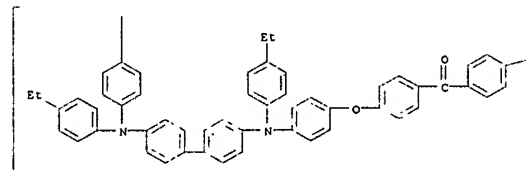
L30 ANSWER 80 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

PAGE 1-B

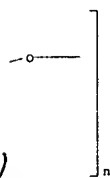


RN 389104-48-7 CAPLUS
 CN Poly[oxy-1,4-phenylenecarbonyl-1,4-phenyleneoxy-1,4-phenylene[(4-ethylphenyl)imino][1,1'-biphenyl]-4,4'-diyl[(4-ethylphenyl)imino]-1,4-phenylene] (9CI) (CA INDEX NAME)

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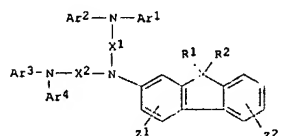


L30 ANSWER 80 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L30 ANSWER 81 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2001:109943 CAPLUS
 DOCUMENT NUMBER: 134:170609
 TITLE: Novel fluorene ring-containing amines suitable as hole transporters
 INVENTOR(S): Nakatsuka, Masakatsu; Shimamura, Takehiko
 PATENT ASSIGNEE(S): Mitsui Chemicals Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 42 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

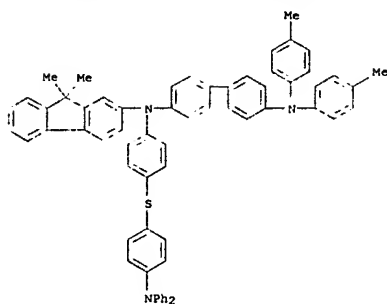
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001039934	A2	20010213	JP 1999-212166	19990727
PRIORITY APPLN. INFO.:			JP 1999-212166	19990727

OTHER SOURCE(S): MARPAT 134:170609
 GI



AB The amines I (Ar1-Ar4 = (un)substituted aryl; NAr1Ar2 and NAr3Ar4 may be N-heterocyclyl; R1, R2 = H, linear, branched, or cyclic alkyl, cycloalkyl.
 (un)substituted aryl, (un)substituted aralkyl; Z1, Z2 = H, halo, linear, branched, or cyclic alkyl, alkoxy, (un)substituted aryl; X1, X2 = (Ar11)mA2; A1, A2 = (un)substituted phenylene, (un)substituted naphthylene; X11 = direct bond, O, S; m = 0, 1 are claimed. The compds. are suitable as hole transporting materials for organic electroluminescent devices.
 IT 238422-95-2P
 RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (preparation of novel fluorene ring-containing amines suitable as hole transporters for organic electroluminescent devices)
 RN 238422-95-2 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N-(9,9-dimethyl-9H-fluoren-2-yl)-N'-[4-[(diphenylamino)phenyl]thio]phenyl]-N',N'-bis(4-methylphenyl)- (9CI) (CA INDEX NAME)

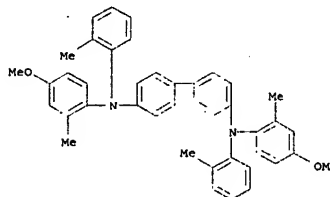
L30 ANSWER 81 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



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L30 ANSWER 82 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:641051 CAPLUS
 DOCUMENT NUMBER: 133:367562
 TITLE: Molecular engineering of organic materials for nonlinear absorption in the visible range: The excited states of tetraphenyl-diamine derivatives
 AUTHOR(S): Paci, Barbara; Nunzi, Jean-Michel; Anemian, Remi; Andraud, Chantal; Collet, Andre; Morel, Yannick; Baldeck, Patrice L.
 CORPORATE SOURCE: CEA-LETI, DEIN-SPE, Groupe Composants Organiques, Gif sur Yvette, 9119, Fr.
 SOURCE: Journal of Optics A: Pure and Applied Optics (2000), 2(4), 268-271
 CODEN: JOAOF8; ISSN: 1464-4258
 PUBLISHER: Institute of Physics Publishing
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB The authors report on nonlinear absorption measurements of tetraphenyl-diamine dyes developed for use as transparent materials for optical limiting applications in the visible range. All the excited state properties which are relevant to the process were studied exptl. using three different and complementary nonlinear spectroscopy tools. Through a modification of the substitution of the peripheral benzene rings of the original dye, the authors could significantly improve its optical limiting activity, especially in the red region where it had a rather poor efficiency.
 IT 307529-82-4
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
 (mol. engineering of organic materials for nonlinear absorption in visible range and excited states of tetra-Ph-diamine derivs.)
 RN 307529-82-4 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(4-methoxy-2-methylphenyl)-N,N'-bis(2-methylphenyl)- (9CI) (CA INDEX NAME)



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L30 ANSWER 82 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

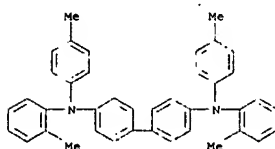
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L30 ANSWER 83 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:612055 CAPLUS
 DOCUMENT NUMBER: 133:192980
 TITLE: Preparation of triarylamines as intermediates for electrophotographic photoreceptors and charge-transfer agents
 INVENTOR(S): Suzuka, Susumu; Anzai, Mitsutoshi; Suzuki, Nobuo
 PATENT ASSIGNEE(S): Hodogaya Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000239235	A2	20000905	JP 1999-370641	19991227
PRIORITY APPLN. INFO.:			JP 1998-368390	A 19981225

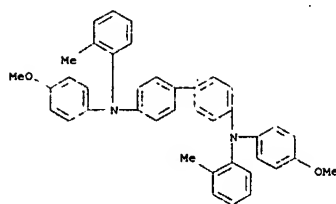
OTHER SOURCE(S): CASREACT 133:192980; MARPAT 133:192980
 AB ABC [A = (un)substituted aromatic hydrocarbonyl or heterocyclyl; B = residue of amine having primary and/or secondary (un)substituted aromatic hydrocarbon or heterocycle residue; c = a/b; a = 1-4; b = 1-8] are prepared by treatment of
 AXa (A, a = same as above; X = Br, I) with BHb (B, b = same as above) and M(HwSxOy)z (M = mono- to trivalent metal, ammonium; w = 0, 1; x = 1, 2; when x = 1, then y = 1-3; when x = 2, then y = 1-5; z = 1/2, 1, 3/2, 2,
 3) in the presence of Cu-type catalysts and bases at 150-250° under N or inert gas. Ph2NH was treated with PhI, K2CO3, Cu powder, and NaHSO3 at 200-205° for 12 h to give 91.0% Ph3N.
 IT 126202-47-9P 289632-95-7P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (preparation of triarylamines as intermediates for electrophot. photoreceptors and charge-transfer agents by Ullmann reaction in presence of sulfites)
 RN 126202-47-9 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(2-methylphenyl)-N,N'-bis(4-methylphenyl)- (9CI) (CA INDEX NAME)



X

RN 289632-95-7 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(4-methoxyphenyl)-N,N'-bis(2-methylphenyl)- (9CI) (CA INDEX NAME)

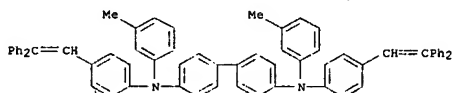
L30 ANSWER 83 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



X

L30 ANSWER 84 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:377680 CAPLUS
 DOCUMENT NUMBER: 133:96502
 TITLE: Preparation of high performance and stable hole transport layer by coevaporation method
 AUTHOR(S): Mori, T.; Imaizumi, K.; Yamashita, K.; Mizutani, T.; Miyazaki, H.
 CORPORATE SOURCE: Graduate School of Engineering, Department of Electrical Engineering, Nagoya University, Nagoya, 464-8603, Japan
 SOURCE: Synthetic Metals (2000), 111-112, 79-82
 CODEN: SYMED2; ISSN: 0379-6779
 PUBLISHER: Elsevier Science S.A.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB The introduction of benzoxazole or diphenylstyryl group into a triphenyldiamine derivative (TPD), which has excellent hole transporting properties and therefore is often used as a hole transport layer in organic light-emitting diodes (LEDs) (BOS-TPD or DPS-TPD), was shown to suppress the polycrystn. of hole transport layer but could not always improve electroluminescence (EL) properties. Thus, the authors tried to improve the low EL properties by keeping a stable film structure with a coevaporation method. The polycrystn. was not observed in the coevaporated TPD:DPS-TPD = 1:1 thin film after a 3-mo standing. The polycrystn. rate of the coevaporated thin film was much slower than that of TPD thin film. The coevaporated hole transport layer of TPD:DPS-TPD = 1:1 also has a better and effective luminance efficiency than the DPS-TPD hole transport layer.
 IT 246026-70-0
 RL: DEV (Device component use); PRP (Properties); USES (Uses) (preparation of high performance and stable hole transport layer by coevapn. method)
 RN 246026-70-0 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-(2,2-diphenylethenyl)phenyl]-N,N'-bis(3-methylphenyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
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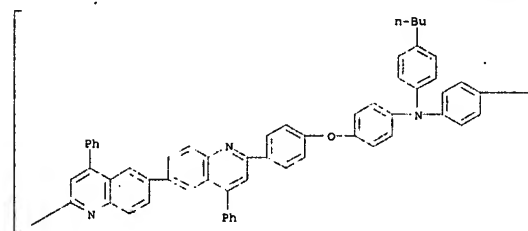
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L30 ANSWER 85 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

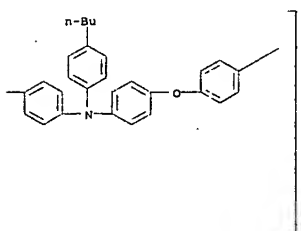
ACCESSION NUMBER: 2000:346335 CAPLUS
 DOCUMENT NUMBER: 133:105868
 TITLE: Polyquinolines: multifunctional polymers for electro-optic and light-emitting applications
 AUTHOR(S): Jen, Alex K.-Y.; Ma, Hong
 CORPORATE SOURCE: Department of Chemistry, Northeastern University, Boston, MA, 02115, USA
 SOURCE: Materials Research Society Symposium Proceedings (2000), 558(Flat-Panel Displays and Sensors--Principles, Materials and Processes), 469-480
 CODEN: MRSPDH; ISSN: 0272-9172
 PUBLISHER: Materials Research Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB A versatile, and generally applicable modular approach for making second-order nonlinear optical (NLO) side-chain aromatic polyquinolines has been developed. This approach emphasizes the ease of incorporating NLO chromophores onto the pendent Ph moieties of parent polyquinolines at the final stage via mild Mitsunobu reaction. This method provides the synthesis of polyquinolines with a broad variation of the polymer backbones and great flexibility in the selection of NLO chromophores. These side-chain NLO polyquinolines demonstrate high electro-optic (E-O) activity (up to 35 pm/V at 830 nm and 22 pm/V at 1300 nm, resp.) and a good combination of thermal, optical, elec. and mech. properties. Comparatively, two new electroluminescent (EL) polyquinolines have been prepared via the Friedlander condensation and nucleophilic reaction. The resulting polymers contain a bipolar property with both an efficient hole-transporting moiety, tetraphenyldiaminobiphenyl (TPD), and an electron affinitive light-emitting moiety, bis-quinoline. In addition, they possess high thermal stability, excellent electrochem. reversibility, good thin film-forming ability, and bright light-emitting property. Elec. characterization of two-layer diode devices based on the configurations of ITO/CuPc/TPD-PQ or TPD-PQE/Al showed excellent electroluminescence performance (a rectification ratio greater than 10⁵ and a low turn-on voltage of less than 4 V).
 IT 213814-71-2P
 RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses) (preparation and characterization and applications of multifunctional polyquinolines for electrooptic and light-emitting devices)
 RN 213814-71-2 CAPLUS
 CN Poly[(4,4'-diphenyl)-6,6'-biquinoline-2,2'-diyl]-1,4-phenyleneoxy-1,4-phenylene[(4-butylphenyl)imino][1,1'-biphenyl]-4,4'-diyl[(4-butylphenyl)imino]-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)

L30 ANSWER 85 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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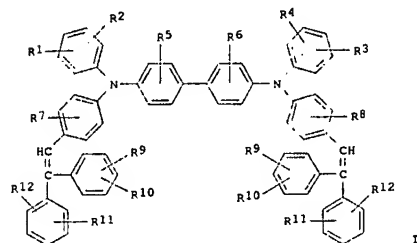
REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
 FORMAT

L30 ANSWER 86 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2000:335693 CAPLUS
 DOCUMENT NUMBER: 132:341273
 TITLE: Organic electroluminescent device for electroluminescent display
 INVENTOR(S): Mori, Tatsuo; Mizutani, Teruyoshi; Miyazaki, Hiroshi; Yamashita, Koichi; Takeda, Toru
 PATENT ASSIGNEE(S): Nippon Steel Chemical Co., Ltd., Japan
 SOURCE: PCT Int. Appl., 25 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000028790	A1	20000518	WO 1999-JP6182	19991105
M: KR, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
JP 2000200685	A2	20000718	JP 1999-156953	19990603
EP 1137326	A1	20010926	EP 1999-954412	19991105
EP 1137326	B1	20060705		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

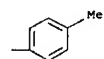
PRIORITY APPLN. INFO.: JP 1998-316648 A 19981106
 JP 1999-156953 A 19990603
 WO 1999-JP6182 W 19991105

OTHER SOURCE(S): MARPAT 132:341273
 GI

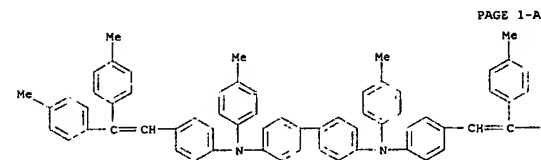


L30 ANSWER 86 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

PAGE 1-B

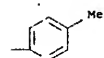


RN 263746-31-2 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-[2,2-bis(4-methylphenyl)ethenyl]phenyl]-N,N'-bis(4-methylphenyl)- (9CI) (CA INDEX NAME)



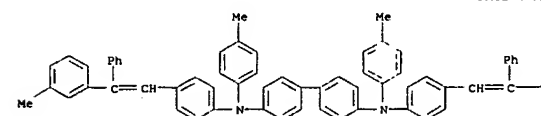
PAGE 1-A

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RN 267892-75-1 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(4-methylphenyl)-N,N'-bis[4-[2-(1,3-methylphenyl)-2-phenylethenyl]phenyl]- (9CI) (CA INDEX NAME)

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L30 ANSWER 86 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

AB An organic electroluminescent device comprises a pair of electrodes one of which is transparent and, interposed there-between, organic compound layers

such as a hole injection layer and a luminescent/electron injection layer, wherein one of the organic compound layers comprises I (R1-12 = H, alkyl).

The organic EL element is excellent in all of luminescent properties, reliability, and durability and is useful as a luminescent element in various displays.

IT 263746-29-8P 263746-30-1P 263746-31-2P

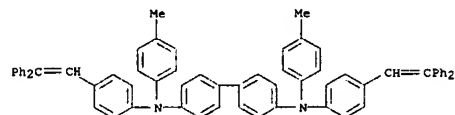
267892-75-1P 267892-76-2P

RL: PMU (Preparation, unclassified); TEM (Technical or engineered material)

use: PREP (Preparation); USES (Uses)
 (organic electroluminescent device)

RN 263746-29-8 CAPLUS

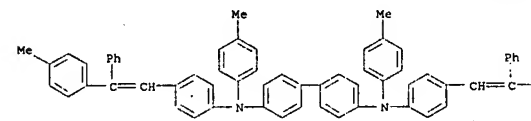
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-[2,2-diphenylethenyl]phenyl]-N,N'-bis(4-methylphenyl)- (9CI) (CA INDEX NAME)



RN 263746-30-1 CAPLUS

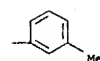
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(4-methylphenyl)-N,N'-bis[4-[2-(4-methylphenyl)-2-phenylethenyl]phenyl]- (9CI) (CA INDEX NAME)

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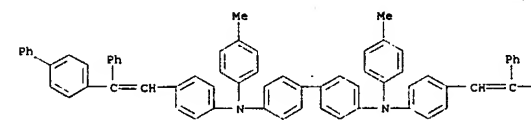
L30 ANSWER 86 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

PAGE 1-B

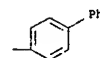


RN 267892-76-2 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-(2-[1,1'-biphenyl]-4-yl-2-phenylethenyl)phenyl]-N,N'-bis(4-methylphenyl)- (9CI) (CA INDEX NAME)

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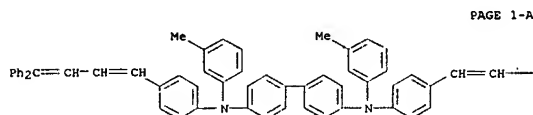
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L30 ANSWER 87 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2000:140556 CAPLUS
 DOCUMENT NUMBER: 132:173372
 TITLE: Electrophotographic photoreceptor containing
 arylamine
 INVENTOR(S): charge-transporting agent with butadiene structure
 PATENT ASSIGNEE(S): Mitsumori, Teruyuki
 SOURCE: Mitsubishi Chemical Corporation, Japan
 U.S., 30 pp., Cont.-in-part of U.S. 5,804,344.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6030734	A	20000229	US 1998-115537	19980715
JP 09244278	A2	19970919	JP 1996-52964	19960311
JP 3584600	B2	20041104		
US 5804344	A	19980908	US 1997-814359	19970311
PRIORITY APPLN. INFO.:			JP 1996-52964	A 19960311
			US 1997-814359	A2 19970311

AB An electrophotog. photoreceptor comprises a photosensitive layer containing a charge-generating agent and a charge-transporting agent on an electroconductive substrate, wherein the charge-transporting agent is an arylamine and has a butadiene structure, and the total of the π -electron number and the lone electron number of the nitrogen atoms in the arylamine is at least 60.

IT 197234-73-4 197234-74-5 197234-75-6
 197234-76-7 197234-77-8 197234-81-4
 197234-83-6 197234-87-0
 RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
 (charge-transporting agent for electrophotog. photoreceptors)
 RN 197234-73-4 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-(4,4-diphenyl-1,3-butadienyl)phenyl]-N,N'-bis(3-methylphenyl)- (9CI) (CA INDEX NAME)

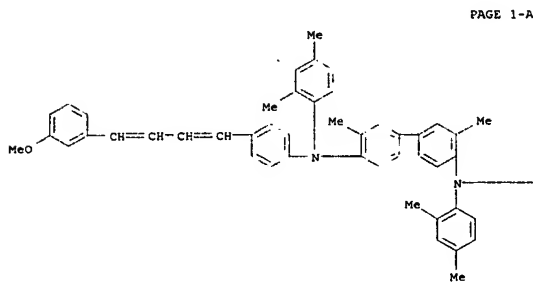


L30 ANSWER 87 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

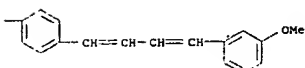
PAGE 1-B

=CH-CH=CH-Ph

RN 197234-76-7 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(2,4-dimethylphenyl)-N,N'-bis[4-(4-(3-methoxyphenyl)-1,3-butadienyl)phenyl]-3,3'-dimethyl- (9CI) (CA INDEX NAME)



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RN 197234-77-8 CAPLUS

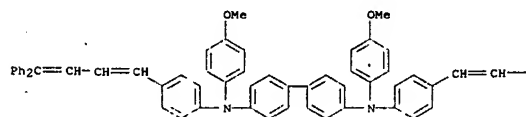
L30 ANSWER 87 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

PAGE 1-B

-CH=CPh2

RN 197234-74-5 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-(4,4-diphenyl-1,3-butadienyl)phenyl]-N,N'-bis(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

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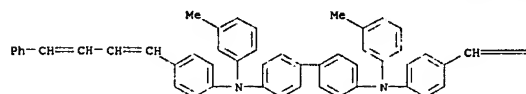


PAGE 1-B

--CH=CPh2

RN 197234-75-6 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(3-methylphenyl)-N,N'-bis[4-(4-phenyl-1,3-butadienyl)phenyl]- (9CI) (CA INDEX NAME)

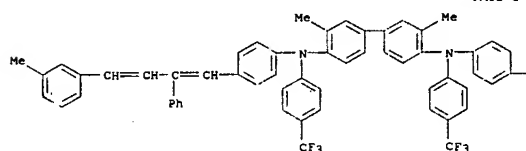
PAGE 1-A



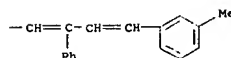
L30 ANSWER 87 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

RN 197234-81-4 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-(4-(3-methylphenyl)-2-phenyl-1,3-butadienyl)phenyl]-N,N'-bis(4-(trifluoromethyl)phenyl)- (9CI) (CA INDEX NAME)

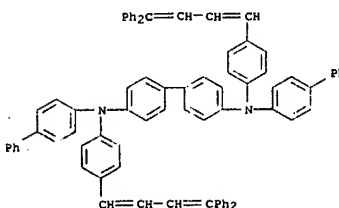
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PAGE 1-B

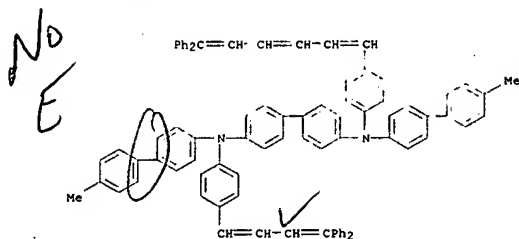


RN 197234-81-4 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-(4-(3-methylphenyl)-2-phenyl-1,3-butadienyl)phenyl]-N,N'-bis[4-(4,4-diphenyl-1,3-butadienyl)phenyl]- (9CI) (CA INDEX NAME)



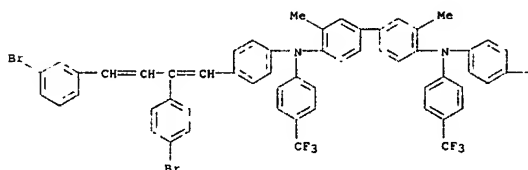
RN 197234-83-6 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-(4,4-diphenyl-1,3-butadienyl)phenyl]-N,N'-bis[4-(4,6,6-diphenyl-1,3,5-hexatrienyl)phenyl]-N,N'-bis(4'-methyl[1,1'-

L30 ANSWER 87 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
biphenyl-4-yl)- (9CI) (CA INDEX NAME)



RN 197234-87-0 CAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-[4-(3-bromophenyl)-2-(4-bromophenyl)-1,3-butadienyl]phenyl]-3,3'-dimethyl-N,N'-bis[4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

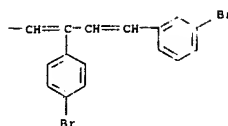
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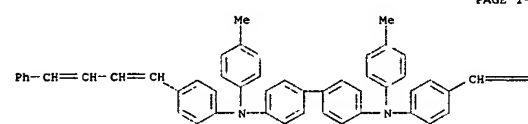
PAGE 1-A

L30 ANSWER 87 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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IT 197234-90-5P
RL: DEV (Device component use); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (Preparation and use as charge-transporting agent for electrophotog. photoreceptors)
RN 197234-90-5 CAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(4-methylphenyl)-N,N'-bis[4-(4-phenyl-1,3-butadienyl)phenyl]- (9CI) (CA INDEX NAME)



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==CH-CH=CH-Ph

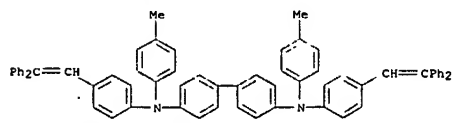
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L30 ANSWER 88 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:126846 CAPLUS
DOCUMENT NUMBER: 132:286045
TITLE: EL properties of organic light-emitting-diode using TPD derivatives with diphenylstyryl groups as hole transport layer
AUTHOR(S): Yamashita, K.; Mori, T.; Mizutani, T.; Miyazaki, H.; Takeda, T.
CORPORATE SOURCE: Graduate School of Engineering, Department of Electrical Engineering, Nagoya University, Furo-cho, Chikusa-ku, Nagoya, Japan
SOURCE: Thin Solid Films (2000), 363(1,2), 33-36
CODEN: THSFAP; ISSN: 0040-6090
PUBLISHER: Elsevier Science S.A.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The authors studied the hole transport characteristics of N,N'-diphenyl-N,N'-bis(3-methylphenyl)-1,1'-diphenyl-4,4'-diamine (TPD) derivs. with a variety of diphenylstyryl side groups for organic light-emitting-diodes (OLEDs). The authors newly synthesized three materials. These hole transport materials (HTM) are N,N'-bis[4-(2,2-diphenylethenyl)phenyl]-N,N'-di(p-tolyl)-benzidine (DPS), N,N'-bis[4-(2,2-di(p-tolylethenyl)phenyl)-N,N'-di(p-tolyl)-benzidine (p-mmdps) and N,N'-bis[4-(2-phenyl-2-(p-tolylethenyl)-phenyl)-N,N'-di(p-tolyl)-benzidine (p-dmDPS)]. The glass transition points of these materials are 90° (DPS), no-detection (p-mmdps) and 180° (p-dmDPS). DPS thin films did not poly-crystallized after several months at room temperature, whereas TPD thin film poly-crystallized after 1 wk.

The luminance of the OLEDs (ITO/HTM (50 nm)/Alq3 (50 nm)/LiF/Al) are 1000 (DPS), 150 (p-mmdps) and 150 cd/m2 (p-dmDPS) at 10 V. The c.d. and luminance of the OLEDs having DPS were not enhanced by the introduction of a 10-nm thick CuPc as a hole injection layer. However, the c.d. and luminance of the OLED having p-mmdps or p-dmDPS were drastically enhanced by introduction of a 10-nm thick CuPc as a hole injection layer, 1750 (p-mmdps) or 2400 cd/m2 (p-dmDPS).

IT 263746-29-8 263746-30-1 263746-31-2
RL: DEV (Device component use); PRP (Properties); USES (Uses) (electroluminescent properties of organic light-emitting-diode using

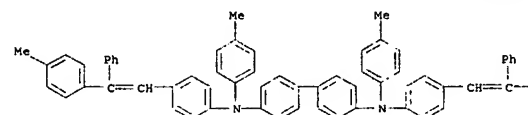
TPD derivs. with diphenylstyryl groups as hole transport layer)
RN 263746-29-8 CAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-(2,2-diphenylethenyl)phenyl]-N,N'-bis[4-(4-methylphenyl)- (9CI) (CA INDEX NAME)



RN 263746-30-1 CAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(4-methylphenyl)-N,N'-bis[4-[2-(4-

L30 ANSWER 88 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
methylphenyl)-2-phenylethenyl]phenyl]- (9CI) (CA INDEX NAME)

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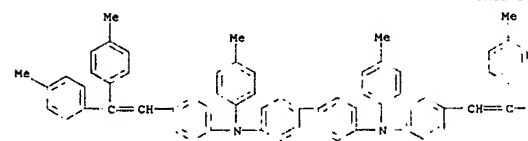


PAGE 1-B



RN 263746-31-2 CAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-[2,2-bis(4-methylphenyl)ethenyl]phenyl]-N,N'-bis[4-(4-methylphenyl)- (9CI) (CA INDEX NAME)

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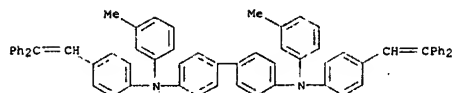


REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS

L30 ANSWER 88 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L30 ANSWER 89 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:593784 CAPLUS
DOCUMENT NUMBER: 131:292754
TITLE: EL behavior of styryl compounds with benzoxazole and benzothiazole for organic light-emitting-diode
AUTHOR(S): Yamashita, Koichi; Imaizumi, Kaname; Mori, Tatsuo; Mizutani, Teruyoshi; Miyazaki, Hiroshi
CORPORATE SOURCE: Department of Electrical Engineering, Graduate school of Engineering, Nagoya University, Nagoya, 464-8603, Japan
SOURCE: Materials Research Society Symposium Proceedings (1999), 561(Organic Nonlinear Optical Materials and Devices), 173-178
CODEN: MRSPDH; ISSN: 0272-9172
PUBLISHER: Materials Research Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The authors studied the EL behaviors of benzo-heterocyclic derivs. as emitting and hole transport layers for organic light-emitting-diodes (OLEDs).
First, the authors studied the benzo-heterocyclic derivs. having styryl group, triphenylamine group and benzoxazole or benzothiazole group as an emission layer. These devices emitted a blue-green light. The current densities of the OLED having these benzo-heterocyclic derivs. as an emission layer were higher than that of the Alq3 OLED at same applied voltage. However, these devices did not have a high EL efficiency (maximum 0.1 lm/W). In these benzo-heterocyclic derivs. having a triphenylamine group, the authors thought that holes could flow out from hole transport to cathode. The authors newly synthesized dimer-type benzo-heterocyclic derivs. without a triphenylamine group, which have benzo-heterocycle at both sides. The current densities of the OLEDs having dimer-type benzo-heterocyclic derivs. was more strongly suppressed than that of the OLEDs having benzo-heterocyclic derivs. with a triphenylamine group at same applied voltage, but the EL efficiency could not be improved by dimerization and eliminating of a triphenyl-diamine group obtained.
Next, the authors studied the TPD derivs. having benzoxazole, benzothiazole and styryl groups as hole transport layer. In new TPD derivs., the EL efficiency of the OLEDs having the TPD derivs. with styryl groups was the best efficiency of all. The EL efficiency of ITO/a TPD derivative with styryl groups/Alq3/AlLi is 1.1 lm/W (maximum luminance 12000 cd/m2).
IT 246026-70-0
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(EL behavior of styryl compds. with benzoxazole and benzothiazole for organic light-emitting-diode)
RN 246026-70-0 CAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine,
N,N'-bis[4-(2,2-diphenylethenyl)phenyl]-N,N'-bis(3-methylphenyl)- (9CI) (CA INDEX NAME)

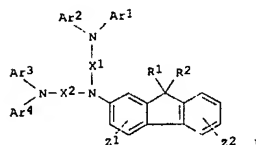
L30 ANSWER 89 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
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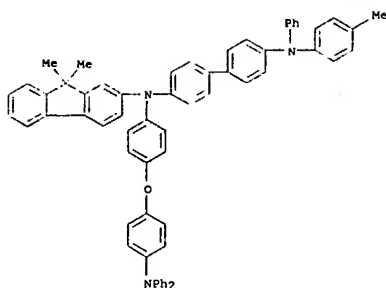
L30 ANSWER 90 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:498739 CAPLUS
DOCUMENT NUMBER: 131:177134
TITLE: Organic electroluminescent device
INVENTOR(S): Nakatsuka, Masakatsu; Kitamoto, Noriko
PATENT ASSIGNEE(S): Mitsui Chemicals Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 49 pp.
CODEN: JKKXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11219787	A2	19990810	JP 1998-22285	19980203
PRIORITY APPLN. INFO.:			JP 1998-22285	19980203
OTHER SOURCE(S):			MARPAT 131:177134	
GI				



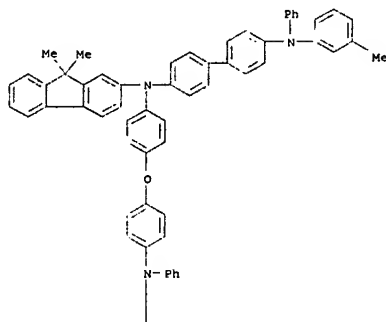
AB An organic electroluminescent device comprises a hole injection/transport layer containing a compound represented by I [Ar1-4 = aryl group; Ar1,2 and Ar3,4 may form heterocyclic rings with N bonded to them; R1,2 = H, alkyl, aryl, and aralkyl; 21,2 = H, halo, alkyl, alkoxy, and aryl; X1,2 = -(Ar-X11)m-A2; Ar1,2 = phenylene, and naphthylene; X11 = single bond, o and s; m = 0, or 1].
IT 238422-90-7 238422-92-9 238422-95-2
RL: DEV (Device component use); USES (Uses)
(hole injection/transport layer for organic electroluminescent device)
RN 238422-90-7 CAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N-(9,9-dimethyl-9H-fluoren-2-yl)-N-[4-[4-(diphenylamino)phenoxy]phenyl]-N'-(4-methylphenyl)-N'-phenyl- (9CI) (CA INDEX NAME)

L30 ANSWER 90 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 238422-92-9 CAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N-(9,9-dimethyl-9H-fluoren-2-yl)-N'-(3-methylphenyl)-N-[4-[(3-methylphenyl)phenylamino]phenoxy]phenyl]-N'-phenyl- (9CI) (CA INDEX NAME)

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L30 ANSWER 91 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:427028 CAPLUS
DOCUMENT NUMBER: 131:122903
TITLE: Electrophotographic photoreceptor and image-forming apparatus using same
INVENTOR(S): Kamisaka, Tomosumi; Kozeki, Kazuhiro; Kojima, Fumio
PATENT ASSIGNEE(S): Fuji Xerox Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 45 pp.
CODEN: JKKXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11184106	A2	19990709	JP 1997-349853	19971218
JP 3314702	B2	20020812		

PRIORITY APPLN. INFO.: JP 1997-349853 19971218

OTHER SOURCE(S): MARPAT 131:122903

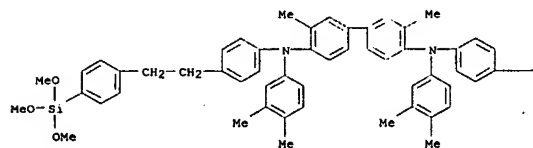
AB The title photoreceptor comprises a conductive support coated with a photosensitive layer containing a compound GDF (G = inorg. glassy network subgroup; D = flexible organic subunit; F = photoconductive subunit), a F-containing compound, and an antioxidant. The compound GDF may be an arylamine with alkoxysilyl group. An image-forming apparatus is also claimed, including

the photoreceptor, a charging means using a contact charging method, and a mech. cleaning means. The photoreceptor shows improved environmental stability, photoconductive properties, mech. strength, and resistance to oxidizing gases.

IT 214332-16-8DP, reaction products with phenyltriethoxysilane, silane coupling agent, and siloxane 220776-98-7DP, reaction products with phenyltriethoxysilane, silane coupling agent, and siloxane RL: DEV (Device component use); MOA (Modifier or additive use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses) (electrophotog. photoreceptor with photosensitive layer containing arylamine compound with alkoxysilyl group, fluorine compound, and antioxidant)

RN 214332-16-8 CAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(3,4-dimethylphenyl)-3,3'-dimethyl-N,N'-bis[4-[2-[4-(trimethoxysilyl)phenyl]ethyl]phenyl]- (9CI) (CA INDEX NAME)

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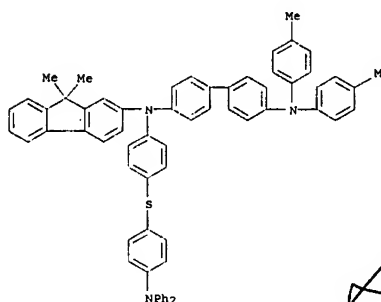


L30 ANSWER 90 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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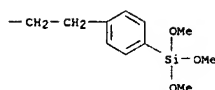


RN 238422-95-2 CAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N-(9,9-dimethyl-9H-fluoren-2-yl)-N-[4-[(diphenylamino)phenyl]thio]phenyl]-N',N'-bis(4-methylphenyl)- (9CI) (CA INDEX NAME)



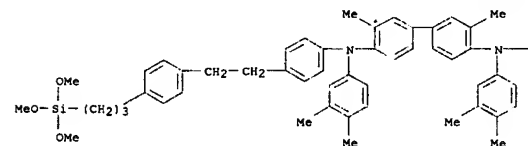
L30 ANSWER 91 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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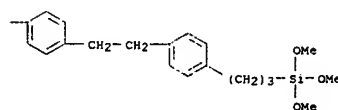


RN 220776-98-7 CAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(3,4-dimethylphenyl)-3,3'-dimethyl-N,N'-bis[4-[2-[4-(3-(trimethoxysilyl)propyl)phenyl]ethyl]phenyl]- (9CI) (CA INDEX NAME)

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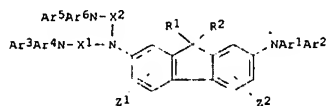
PAGE 1-B



L30 ANSWER 92 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1999:394828 CAPLUS
 DOCUMENT NUMBER: 131:80579
 TITLE: Organic electric-field light-emitting device containing fluorene derivative
 INVENTOR(S): Nakatsuka, Masakatsu; Kitamoto, Noriko
 PATENT ASSIGNEE(S): Mitsui Chemicals Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 65 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11167992	A2	19990622	JP 1997-335859	19971205
PRIORITY APPLN. INFO.:			JP 1997-335859	19971205

OTHER SOURCE(S): MARPAT 131:80579
 GI



AB The device has a pair of electrodes sandwiching a layer containing a fluorene compound I (Ar1-6 = aryl: Ar1 and Ar2, Ar3 and Ar4, and Ar5 and Ar6 may bond

to form a heterocyclic; R1, 2 = H, linear, branched, or cyclic alkyl, aryl, aralkyl; Z1, 2 = H, halogen, linear, branched, or cyclic alkyl, linear branched, or cyclic alkoxy, aryl; X1, 2 = arylene). The device shows long life and excellent durability.

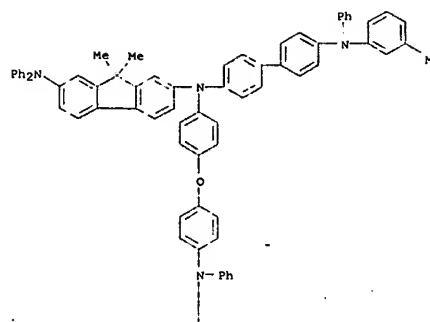
IT 228706-91-0 228706-93-2
 RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)

(organic elec.-field light-emitting device containing fluorene derivative)

RN 228706-91-0 CAPLUS
 CN 9H-Fluorene-2,7-diamine, 9,9-dimethyl-N-[4'-[3-methylphenyl]phenylamino][1,1'-biphenyl]-4-yl]-N-[4'-[3-methylphenyl]phenylamino]phenoxy]phenyl]-N',N'-diphenyl- (9CI) (CA INDEX NAME)

L30 ANSWER 92 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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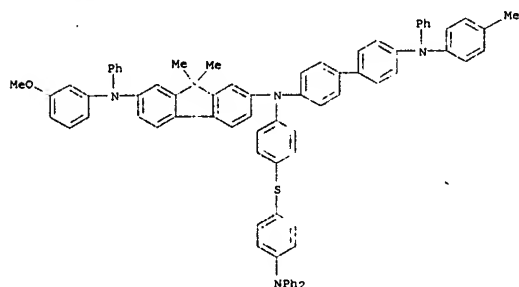


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RN 228706-93-2 CAPLUS
 CN 9H-Fluorene-2,7-diamine, N-[4'-[4-(diphenylamino)phenyl]thio]phenyl]-N'-(3-methoxyphenyl)-9,9-dimethyl-N-[4'-[4-(4-methylphenyl)phenylamino][1,1'-biphenyl]-4-yl]-N'-phenyl- (9CI) (CA INDEX NAME)

L30 ANSWER 92 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



L30 ANSWER 93 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:277547 CAPLUS
 DOCUMENT NUMBER: 130:359255
 TITLE: Electrophotographic photoreceptor containing charge-generating material treated with composite charge-transporting material
 INVENTOR(S): Nukata, Katsumi; Yamada, Wataru; Iwasaki, Masahiro
 PATENT ASSIGNEE(S): Fuji Xerox Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 37 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11119455	A2	19990430	JP 1997-284823	19971017
JP 3695095	B2	20050914		
PRIORITY APPLN. INFO.:			JP 1997-284823	19971017

OTHER SOURCE(S): MARPAT 130:359255

AB The photoreceptor has a functional layer containing a charge-generating material and a charge-transport material comprising a network (crosslinking) of an organic-inorg. composite on an elec. conductive support.

It shows low residual potential and improved sensitivity.

IT 224781-82-2P 224781-85-5P 224782-00-7P

224782-10-9P

RL: DEV (Device component use); MOA (Modifier or additive use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)

(electrophotog. photoreceptor containing charge-generating material treated with network of composite charge-transporting material)

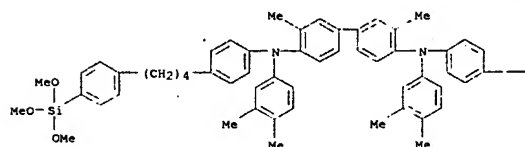
RN 224781-82-2 CAPLUS

CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(3,4-dimethylphenyl)-3,3'-dimethyl-N,N'-bis[4-[4-(4-(trimethoxysilyl)phenyl]butyl]phenyl]-, homopolymer (9CI) (CA INDEX NAME)

CH 1

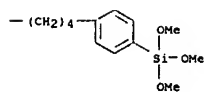
CRN 224781-81-1
 CMF C68 H80 N2 O6 S12

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L30 ANSWER 93 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

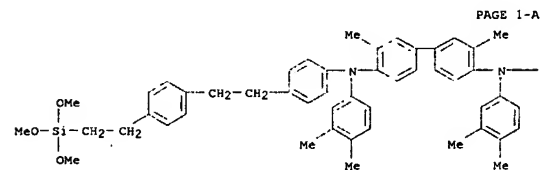
PAGE 1-B



RN 224781-85-5 CAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(3,4-dimethylphenyl)-3,3'-dimethyl-N,N'-bis[4-[2-[4-[2-(trimethoxysilyl)ethyl]phenyl]ethyl]phenyl]-, homopolymer (9CI) (CA INDEX NAME)

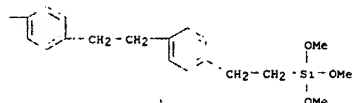
CM 1

CRN 214332-18-0
CMF C68 H80 N2 O6 Si2



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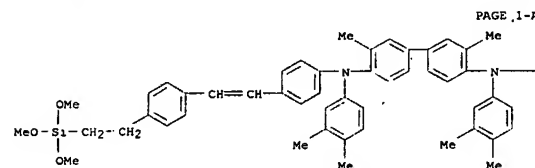
PAGE 1-B



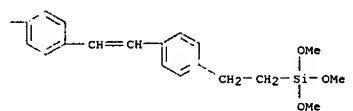
RN 224782-00-7 CAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(3,4-dimethylphenyl)-3,3'-dimethyl-

L30 ANSWER 93 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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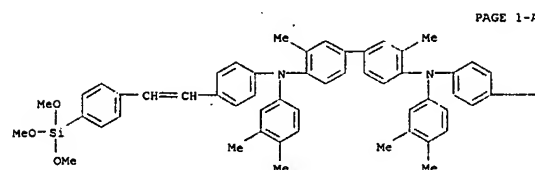
PAGE 1-B



L30 ANSWER 93 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
N,N'-bis[4-[2-[4-[2-(trimethoxysilyl)phenyl]ethenyl]phenyl]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 214332-15-7
CMF C64 H68 N2 O6 Si2



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RN 224782-10-9 CAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(3,4-dimethylphenyl)-3,3'-dimethyl-N,N'-bis[4-[2-[4-[2-(trimethoxysilyl)ethyl]phenyl]ethenyl]phenyl]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

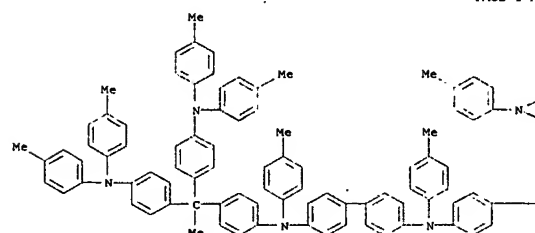
CRN 214332-17-9
CMF C68 H76 N2 O6 Si2

L30 ANSWER 94 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:191348 CAPLUS
DOCUMENT NUMBER: 130:215833
TITLE: Electrophotographic photoreceptor containing improved charge-transferring material
INVENTOR(S): Hsieh, Bing R.; Mishra, Satchidanand; Vonhoene, Donald
C.; Morgan, Anthony M.; Yu, Robert Cu; Post, Richard L.; Grabowski, Edward F.
PATENT ASSIGNEE(S): Xerox Corporation, USA
SOURCE: U.S., 58 pp., Cont.-in-part of U.S. Ser. No. 886,101.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5882829	A	19990316	US 1997-961301	19971030
PRIORITY APPLN. INFO.:			US 1997-886101	A2 19970630

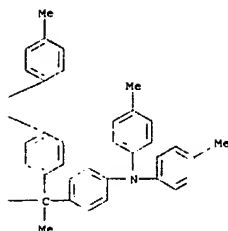
OTHER SOURCE(S): MARPAT 130:215833
AB An electrophotog. photoreceptor comprises a supporting substrate and at least one photoconductive layer, the photoconductive layer comprising a charge-transferring material selected from polyarylamines. The photoconductive layer may be a single photoconductive layer or may comprise a combination of layers such as a charge-generating layer and a charge-transferring layer.
IT 220922-98-5P
RL: DEV (Device component use); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (preparation and use as charge-transferring agent for electrophotog. photoreceptors)
RN 220922-98-5 CAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-[1,1-bis[4-[bis(4-methylphenyl)amino]phenyl]ethyl]phenyl]-N,N'-bis(4-methylphenyl)- (9CI) (CA INDEX NAME)

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L30 ANSWER 94 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

PAGE 1-B



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

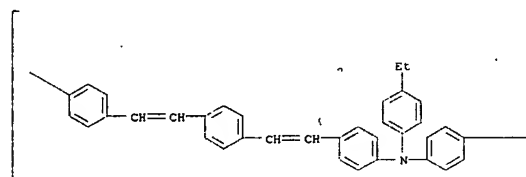
L30 ANSWER 95 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1999:175607 CAPLUS
 DOCUMENT NUMBER: 130:210117
 TITLE: Charge transport polymers for electroluminescent polymer compositions and processes thereof
 INVENTOR(S): Hsieh, Bing R.
 PATENT ASSIGNEE(S): Xerox Corporation, USA
 SOURCE: U.S., 33 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5879821	A	19990309	US 1997-969727	19971113
JP 11246660	A2	19990914	JP 1998-315938	19981106
PRIORITY APPLN. INFO.:			US 1997-969727	A 19971113

AB The title charge transport polymers are typically aromatic polyamines containing azomethine or (substituted) phenylenevinylene groups in the chain. The polymers are useful in electroluminescent devices. A polymer was prepared from N,N'-di(p-ethylphenyl)-N,N'-di(p-formylphenyl)-1,1'-biphenyl-4,4'-diamine and p-phenylene diamine.
 IT 220995-54-0P 220995-55-1P
 RL: IMP (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (charge transport polymers for electroluminescent polymer compns. and processes thereof)
 RN 220995-54-0 CAPLUS
 CN

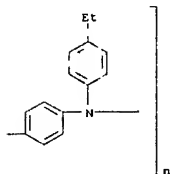
Poly[[4-ethylphenyl]imino][1,1'-biphenyl]-4,4'-diyl[[4-ethylphenyl]imino]-1,4-phenylene-(1E)-1,2-ethenediyl-1,4-phenylene-(1E)-1,2-ethenediyl-1,4-phenylene] (9CI) (CA INDEX NAME)

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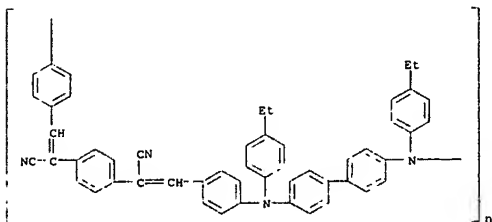


L30 ANSWER 95 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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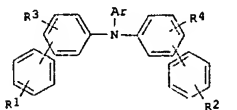
RN 220995-55-1 CAPLUS
 CN
 Poly[[4-ethylphenyl]imino][1,1'-biphenyl]-4,4'-diyl[[4-ethylphenyl]imino]-1,4-phenylene-(1Z)-2-cyano-1,2-ethenediyl-1,4-phenylene-(1Z)-1-cyano-1,2-ethenediyl-1,4-phenylene] (9CI) (CA INDEX NAME)



L30 ANSWER 96 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1999:157136 CAPLUS
 DOCUMENT NUMBER: 130:244425
 TITLE: Electrophotographic photoreceptor using specific two types of charge-transporting materials
 INVENTOR(S): Kurimoto, Eiji; Umeda, Minoru; Ikegami, Takaaki; Sakon, Yota
 PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 384 pp.
 CODEN: JKOXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11065140	A2	19990305	JP 1997-239555	19970815
PRIORITY APPLN. INFO.:			JP 1997-239555	19970815

GI

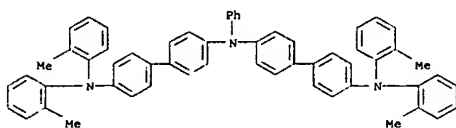


AB The title photoreceptor comprises a conductive support coated with a photosensitive layer containing a compound I [R1, R2 = H, amino, (substituted) dialkylamino, alkoxy, thioalkoxy, aryloxy, (substituted) alkyl, halo, (substituted) aryl; R3, R4 = H, alkoxy, (substituted) alkyl, halo; Ar = (substituted) monocyclic aromatic hydrocarbon, (substituted) non-condensed polycyclic aromatic hydrocarbon, (substituted) heterocycle] and a compound [A(CH:CH)nCR:CH]2(CH2)m [II: A = 9-anthryl, (substituted) N-substituted carbazolyl, N-substituted phenothiazinyl, ArNR1R2 (Ar = (substituted) arylene; R1, R2 = (substituted) alkyl, (substituted) aralkyl, (substituted) aryl; R = H, (substituted) alkyl, (substituted) aralkyl, (substituted) aryl; m = 2-8; n = 0 or 1]. 22 Types of compds. may be used instead of I and II. The photoreceptor shows high photosensitivity, stable charging properties, and improved durability in repeated use.

IT 214272-66-9
 RL: DEV (Device component use); USES (Uses)
 (electrophotog. photoreceptor containing two-types of charge-transporting agents)

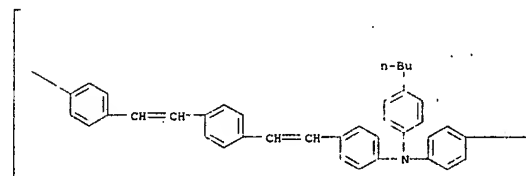
RN 214272-66-9 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N-[4'-[bis(2-methylphenyl)amino][1,1'-biphenyl]-4-yl]-N',N'-bis(2-methylphenyl)-N-phenyl- (9CI) (CA INDEX NAME)

L30 ANSWER 96 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



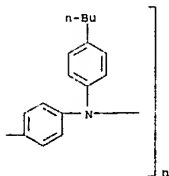
L30 ANSWER 97 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1999:140103 CAPLUS
 DOCUMENT NUMBER: 130:267836
 TITLE: Synthesis and characterization of a novel and highly efficient light-emitting polymer
 AUTHOR(S): Liu, Y.; Liu, M. S.; Jen, A. K.-Y.
 CORPORATE SOURCE: Dep. Chem., Northeastern Univ., Boston, MA, 02115, USA
 SOURCE: Acta Polymerica (1999), 50(2-3), 105-108
 CODEN: APCODY; ISSN: 0323-7648
 PUBLISHER: Wiley-VCH Verlag GmbH
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB A polymer (TPD-PPV), incorporating both efficient light-emitting and hole-transporting moieties was synthesized. This polymer also possesses excellent film-forming property, good thermal stability, and high electrochem. reversibility and stability. The HOMO-LUMO energy levels were determined by cyclic voltammetry and UV-Vis measurement. The diode with the structure of ITO/CuPc/TPD-PPV/Al showed high rectification ratio (108) and low turn-on voltage (4.2 V). A bright green-yellow light-emission was observed in day-light under forward bias.
 IT 222310-67-0P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (Preparation and characterization of highly efficient light-emitting polyamines)
 RN 222310-67-0 CAPLUS
 CN Poly[[(4-butylphenyl)imino][1,1'-biphenyl]-4,4'-diyl[(4-butylphenyl)imino]-1,4-phenylene-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl-1,4-phenylene] (9CI) (CA INDEX NAME)

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L30 ANSWER 97 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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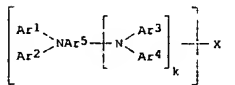
REFERENCE COUNT:
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14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR
RECORD. ALL CITATIONS AVAILABLE IN THE RE

L30 ANSWER 98 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1999:113225 CAPLUS
 DOCUMENT NUMBER: 130:202877
 TITLE: Electrophotographic photoconductor with excellent durability
 INVENTOR(S): Yamada, Wataru; Nukada, Katsumi; Iwasaki, Masahiro
 PATENT ASSIGNEE(S): Fujifilm Xerox Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 41 pp.
 CODEN: JKXXAP
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11038656	A2	19990212	JP 1997-190236	19970715
JP 3264218	B2	20020311		
PRIORITY APPLN. INFO.:				
			JP 1996-187932	A 19960717
			JP 1997-129039	A 19970519

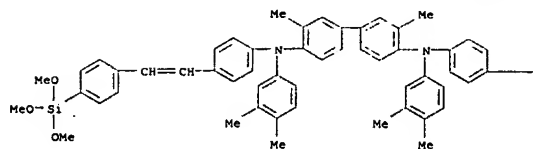
GI



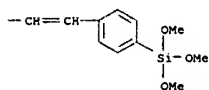
AB The title electrophotog. photoconductor contains a F-containing silane coupling compound and at least 1 specific silane compound represented by a general formula I [Ar1-4 = aryl; Ar5 = aryl, arylene; X = -Y-SiR13-a(OR2)a; R1 = H, alkyl, aryl; R2 = H, alkyl, trialkylsilyl; a = 1-3; Y = divalent group; k = 0, 1] in a layer, preferable in the outermost charge transport layer. The compound is cured by an acidic catalysis.
 The electrophotog. photoconductor contains halogenated gallium phthalocyanine, halogenated tin phthalocyanine, hydroxygallium phthalocyanine and/or oxytitanium phthalocyanine.
 IT 214332-15-7 214332-16-8 214332-17-9
 220776-96-7
 RL: DEV (Device component use); USES (Uses) (silane compound in the outermost charge transport layer of the electrophotog. photoconductor)
 RN 214332-15-7 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(3,4-dimethylphenyl)-3,3'-dimethyl-N,N'-bis[4-(2-(4-(trimethoxysilyl)phenyl)ethenyl)phenyl]- (9CI) (CA INDEX NAME)

L30 ANSWER 98 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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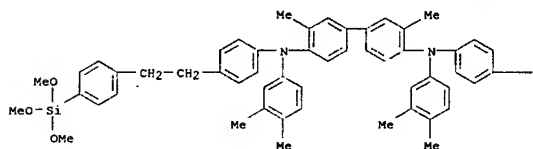


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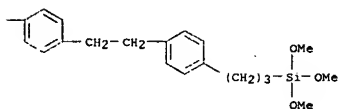


RN 214332-16-8 CAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(3,4-dimethylphenyl)-3,3'-dimethyl-N,N'-bis[4-[2-[4-(trimethoxysilyl)phenyl]ethyl]phenyl]- (9CI) (CA INDEX NAME)

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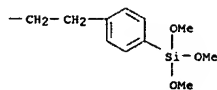


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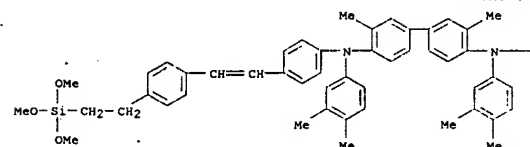
L30 ANSWER 98 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

PAGE 1-B

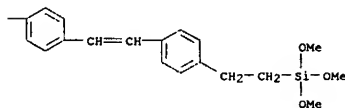


RN 214332-17-9 CAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(3,4-dimethylphenyl)-3,3'-dimethyl-N,N'-bis[4-[2-[4-(trimethoxysilyl)phenyl]ethyl]phenyl]ethenyl]phenyl]- (9CI) (CA INDEX NAME)

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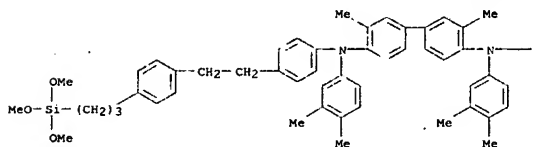
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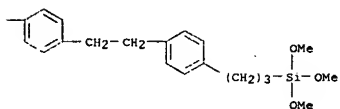
RN 220776-98-7 CAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(3,4-dimethylphenyl)-3,3'-dimethyl-N,N'-bis[4-[2-[4-(trimethoxysilyl)propyl]phenyl]ethyl]phenyl]- (9CI) (CA INDEX NAME)

L30 ANSWER 98 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

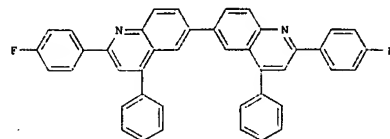
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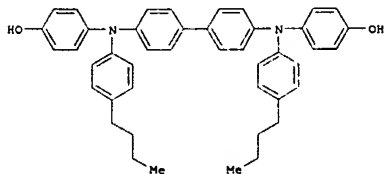
PAGE 1-B



L30 ANSWER 99 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:776058 CAPLUS
DOCUMENT NUMBER: 130:154039
TITLE: Synthesis and characterization of a novel bipolar polymer for light-emitting diodes
AUTHOR(S): Liu, Yunqi; Ma, Hong; Jen, Alex K-Y.
CORPORATE SOURCE: Department of Chemistry, Northeastern University, Boston, MA, 02115, USA
SOURCE: Chemical Communications (Cambridge) (1998), (24), 2747-2748
CODEN: CHCOFS; ISSN: 1359-7345
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I



II

AB A novel bipolar light-emitting polymer containing both efficient hole and electron injecting/transporting segments was prepared by polymerization of I with

II. The polymer was a pale gray fibrous solid and was readily soluble in common organic solvents such as CHCl₃, THF and cyclopentanone. The polymer

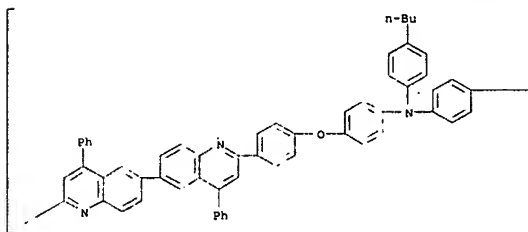
exhibited high thermal stability (Td = 445°), good electrochem. reversibility, excellent thin film-forming and light-emitting properties (bright yellow emission, a rectification ratio greater than 105 and a low turn-on voltage of 3.7 V).

IT 213814-71-2P
RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(synthesis and characterization of novel bipolar polymer for

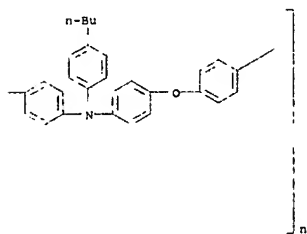
L30 ANSWER 99 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 light-emitting diodes)
 RN 213814-71-2 CAPLUS
 CN Poly[(4,4'-diphenyl-6,6'-biquinoline-2,2'-diyl)-1,4-phenyleneoxy-1,4-phenylene[(4-butylphenyl)imino][1,1'-biphenyl]-4,4'-diyl[(4-butylphenyl)imino]-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)

L30 ANSWER 99 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

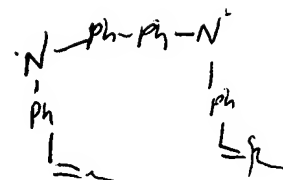
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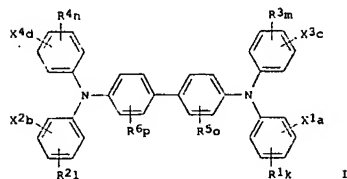
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT



L30 ANSWER 100 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1998:758855 CAPLUS
 DOCUMENT NUMBER: 130:73815
 TITLE: Electrophotographic photoreceptor using novel arylamine compound
 INVENTOR(S): Mitsumori, Mitsuyuki
 PATENT ASSIGNEE(S): Mitsubishi Chemical Industries Ltd., Japan; Mitsubishi
 SOURCE: Chemical Corp.
 Jpn. Kokai Tokkyo Koho, 17 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

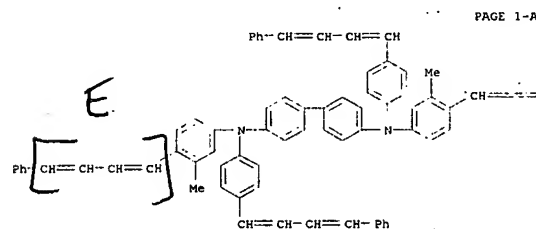
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10312072	A2	19981124	JP 1997-124135	19970514
JP 3582298	B2	20041027		
US 5932384	A	19990803	US 1998-78503	19980514
			JP 1997-124135	A 19970514
			JF 1997-124136	A 19970514
			JP 1997-124137	A 19970514

OTHER SOURCE(S): MARPAT 130:73815
 GI



AB The title photoreceptor comprises a conductive support coated with a photosensitive layer containing an arylamine compound I (R1-6 = halo, (substituted) alkyl, (substituted) alkoxy, (substituted) aryl, substituted amino: k, l, m, n, o, p = 0-4; X1 = (CR7:CR8)ICR9:CR10R11; X2-4 = (CR12:CR13)hCR14:CR15R16 (1 ≥ 1; h ≥ 0; R7-16 = H, (substituted) alkyl, (substituted) alkoxy, (substituted) aryl, (substituted) heterocyclic group, in the each pair of R10 and R11, R15 and R16, when either one is H or alkyl, the other aryl or heterocyclic group, the each pair may be condensed to form a carbocyclic or heterocyclic group; a, b, c, d = 1 or 2). The photoreceptor shows high photosensitivity, low residual potential, and good durability in repeated

L30 ANSWER 100 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 use.
 IT 217490-89-6P
 RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
 (electrophotog. photoreceptor containing arylamine as charge-transporting agent)
 RN 217490-89-6 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[3-methyl-4-(4-phenyl-1,3-butadienyl)phenyl]-N,N'-bis[4-(4-phenyl-1,3-butadienyl)phenyl]- (9CI)
 (CA INDEX NAME)



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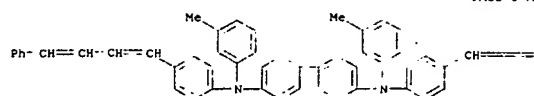
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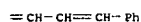
IT 197234-75-6
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (formylation of; preparation of arylamine compound charge-transporting agent)
 RN 197234-75-6 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[3-methylphenyl]-N,N'-bis[4-(4-phenyl-1,3-butadienyl)phenyl]- (9CI) (CA INDEX NAME)

L30 ANSWER 100 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

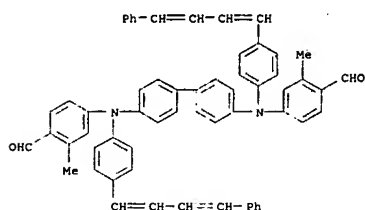
PAGE 1-A



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IT 217490-90-9P
 RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation);
 RACT (Reactant or reagent)
 (preparation of arylamine compound charge-transporting agent)
 RN 217490-90-9 CAPLUS
 CN Benzaldehyde, 4,4'-bis-[(1,1'-biphenyl)-4,4'-diylbis[4-(4-phenyl-1,3-butadienyl)phenyl]imino)]bis(2-methyl- (9CI) (CA INDEX NAME)



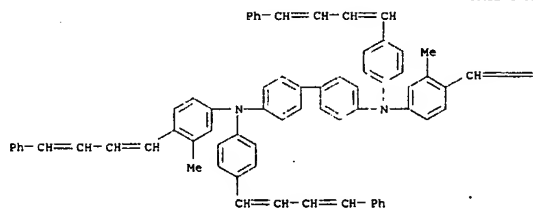
L30 ANSWER 101 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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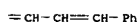


RN 217490-89-6 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[3-methyl-4-(4-phenyl-1,3-butadienyl)phenyl]-N,N'-bis[4-(4-phenyl-1,3-butadienyl)phenyl]- (9CI)
 (CA INDEX NAME)

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L30 ANSWER 101 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1998:758854 CAPLUS
 DOCUMENT NUMBER: 130:73814
 TITLE: Electrophotographic photoreceptor using polarizability

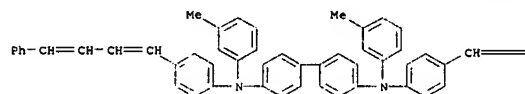
agent
 INVENTOR(S): Mitsumori, Mitsuyuki; Shoda, Takayuki; Sato, Mikiko
 PATENT ASSIGNEE(S): Mitsubishi Chemical Industries Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10312071	A2	19981124	JP 1997-124137	19970514
US 5932384	A	19990803	US 1998-78503	19980514
JP 2006072386	A2	20060316	JP 2005-321718	20051107
PRIORITY APPLN. INFO.:			JP 1997-124135	A 19970514
			JP 1997-124136	A 19970514
			JP 1997-124137	A 19970514

AB The title photoreceptor comprises a conductive support coated with a photosensitive layer containing a charge-generating agent and a charge-transporting agent in which the calculated polarizability α_{cal} and calculated dipole moment P_{cal} , both of which are obtained by optimization calcn. using semiempirical MO calcn. with the PM3 parameter, satisfy the equations $\alpha_{cal} > 70$ (Å³) and $P_{cal} < 1.8$ (D). The photoreceptor shows high photosensitivity and low residual potential in repeated use.
 IT 197234-75-6 217490-89-6
 RL: DEV (Device component use); USES (Uses)
 (electrophotog. photoreceptor containing calculated polarizability and dipole moment-controlled charge-transporting agent)

RN 197234-75-6 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(3-methylphenyl)-N,N'-bis[4-(4-phenyl-1,3-butadienyl)phenyl]- (9CI) (CA INDEX NAME)

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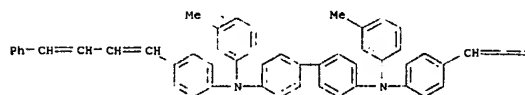
L30 ANSWER 102 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1998:758853 CAPLUS
 DOCUMENT NUMBER: 130:73813
 TITLE: Electrophotographic photoreceptor containing polarizability and dipole moment-controlled charge-transporting agent

INVENTOR(S): Mitsumori, Mitsuyuki; Shoda, Takayuki; Fujii, Akiteru
 PATENT ASSIGNEE(S): Mitsubishi Chemical Industries Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

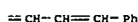
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10312070	A2	19981124	JP 1997-124136	19970514
US 5932384	A	19990803	US 1998-78503	19980514
PRIORITY APPLN. INFO.:			JP 1997-124135	A 19970514
			JP 1997-124136	A 19970514
			JP 1997-124137	A 19970514

OTHER SOURCE(S): MARPAT 130:73813
 AB The title photoreceptor comprises a conductive support coated with a photosensitive layer containing a charge-generating agent and a charge-transporting agent satisfying the equations $\alpha > 100$ (Å³) and $P < 1.6$ (D), wherein α is polarizability and P dipole moment of the charge-transporting agent. The photoreceptor shows high photosensitivity and low residual potential in repeated use.
 IT 197234-75-6
 RL: DEV (Device component use); USES (Uses)
 (electrophotog. photoreceptor containing polarizability and dipole moment-controlled charge-transporting agent)
 RN 197234-75-6 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(3-methylphenyl)-N,N'-bis[4-(4-phenyl-1,3-butadienyl)phenyl]- (9CI) (CA INDEX NAME)

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L30 ANSWER 102 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

L30 ANSWER 103 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:758676 CAPLUS
 DOCUMENT NUMBER: 130:73811
 TITLE: Styryl-containing polymer, its manufacture, and organic electroluminescent device,
 electrophotographic photoreceptor, and hole-transporting material using it
 INVENTOR(S): Ueda, Hideaki; Kitahara, Takeshi; Nozaki, Takeshi
 PATENT ASSIGNEE(S): Minolta Camera Co., Ltd., Japan; Konica Minolta Holdings, Inc.
 SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.
 CODEN: JKOXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10310635	A2	19981124	JP 1997-119192	19970509
JP 3780619	B2	20060531		
US 6066712	A	20000523	US 1998-74914	19980508
PRIORITY APPLN. INFO.:			JP 1997-119192	A 19970509
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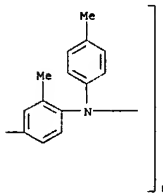
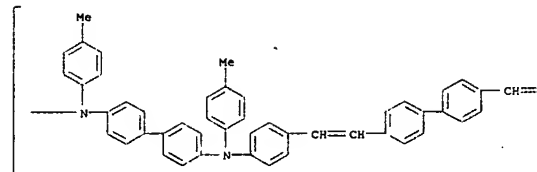
AB The styryl-containing polymer is represented by
 $[Ar1CH:CHAr2N(Ar3)(Ar5N(Ar6))]_m$
 $Ar4CH:CH(Ar1-2, Ar4 = \text{arylene}; Ar5 = \text{arylene, 2-valent condensed polycyclic group}; Ar3, Ar6 = \text{alkyl, aralkyl, aryl}; Ar1-6 \text{ may be substituted}; m = 0-3; n = \text{natural number})$. The above polymer is manufactured by the reaction between a P compound $XCH2Ar1CH2X$ [$X = PO(OR1)2$ or $PR23.Y$;
 R1 = lower alkyl; R2 = cycloalkyl, aryl; Y = halo] and an aldehyde compound $OCHAr2N(Ar3)(Ar5N(Ar6))mAr4CHO$. The electroluminescent device contains the polymer in a thin organic compound thin layer including a light-emitting layer and the photoreceptor contains the polymer as a charge-transporting material. The hole-transporting material composed of the polymer is also claimed. The styryl-containing polymer shows good performance in charge-transporting and optical conductivity even after repeated use.
 IT 217632-43-4 217632-46-7
 RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
 (styryl-containing polymer as charge-transporting material for organic electroluminescent device and electrophotog. photoreceptor)
 RN 217632-43-4 CAPLUS
 CN Poly[[(4-methylphenyl)imino][1,1'-biphenyl]-4,4'-diyl] [(4-methylphenyl)imino]-1,4-phenylene-1,2-ethenediyl[1,1'-biphenyl]-4,4'-diyl-1,2-ethenediyl-1,4-phenylene] (9CI) (CA INDEX NAME)

L30 ANSWER 103 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

L30 ANSWER 103 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

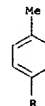
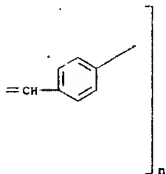
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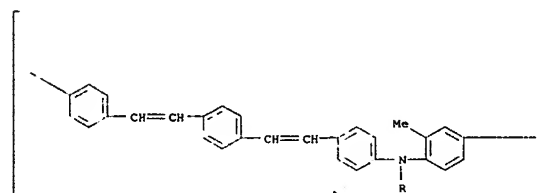
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RN 217632-46-7 CAPLUS
 CN Poly[[(4-methylphenyl)imino][3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl] [(4-methylphenyl)imino]-1,4-phenylene-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl-1,4-phenylene] (9CI) (CA INDEX NAME)

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L30 ANSWER 104 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1998:750655 CAPLUS
 DOCUMENT NUMBER: 130:59045
 TITLE: Styryl-containing polymer, its manufacture, and organic electroluminescent device,
 electrophotographic photoreceptor, and hole-transporting material using it
 INVENTOR(S): Ueda, Hideaki; Kitahara, Takeshi; Nozaki, Takeshi
 PATENT ASSIGNEE(S): Minolta Camera Co., Ltd., Japan; Konica Minolta Holdings, Inc.
 SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

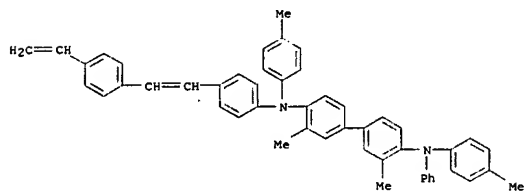
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10310606	A2	19981124	JP 1997-119194	19970509
JP 3800720	B2	20060726		
US 6066712	A	20000523	US 1998-74914	19980508
			JP 1997-119192	A 19970509
			JP 1997-119194	A 19970509

PRIORITY APPLN. INFO.:

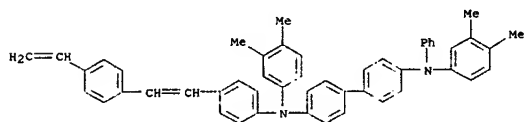
AB The styryl-containing polymer is represented by [CH₂CH(Ar1CH:CHAr2)]_n
 (Ar1 =
 arylene; Ar2 = aryl, condensed polycyclic group, heterocyclic group; Ar1
 and Ar2 may be substituted; n = natural number). The above polymer is
 manufactured by (1) the reaction between a P compound [CH₂CH(Ar1CH₂X)]_n
 and an
 aldehyde compound Ar2CHO or (2) the reaction between an aldehyde compound
 [CH₂CH(Ar1CHO)]_n and a P compound Ar2CH₂X [X = PO(OR)₂ or PR₂SR; R1 =
 lower alkyl; R2 = cycloalkyl, aryl; Y = halo]. The electroluminescent
 device contains the polymer, a 21 organic compound thin layer including
 a light-emitting layer and the photoreceptor contains the polymer as a
 charge-transporting material. The hole-transporting material composed of
 the polymer is also claimed. The styryl-containing polymer shows good
 performance in charge-transporting and optical conductivity even after
 repeated

use.
 IT 184159-38-4 217449-69-9 217449-72-4
 217449-74-6
 RL: DEV (Device component use); TEM (Technical or engineered material
 use); USES (Uses)
 (styryl-containing polymer as charge-transporting material for organic
 electroluminescent device and electrophotog. photoreceptor)
 RN 184159-38-4 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N-[4-[2-(4-ethenylphenyl)ethenyl]phenyl]-
 N,N'-bis(4-methylphenyl)-N'-phenyl-, homopolymer (9CI) (CA INDEX
 NAME)
 CM 1
 CRN 184159-37-3

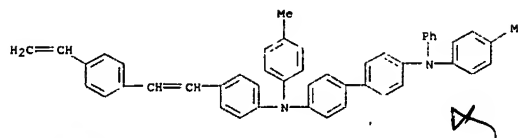
L30 ANSWER 104 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



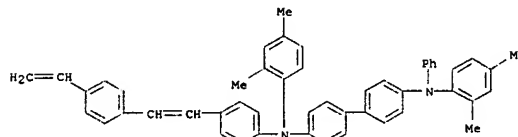
RN 217449-74-6 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(3,4-dimethylphenyl)-N-[4-[2-(4-ethenylphenyl)ethenyl]phenyl]-N'-phenyl-, homopolymer (9CI) (CA INDEX NAME)
 CM 1
 CRN 217449-73-5
 CNF C50 H44 N2



L30 ANSWER 104 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 CNF C48 H40 N2



RN 217449-69-9 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(2,4-dimethylphenyl)-N-[4-[2-(4-ethenylphenyl)ethenyl]phenyl]-N'-phenyl-, homopolymer (9CI) (CA INDEX NAME)
 CM 1
 CRN 217449-68-8
 CNF C50 H44 N2



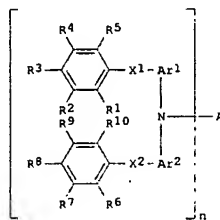
RN 217449-72-4 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N-[4-[2-(4-ethenylphenyl)ethenyl]phenyl]-3,3'-dimethyl-N,N'-bis(4-methylphenyl)-N'-phenyl-, homopolymer (9CI) (CA INDEX NAME)
 CM 1
 CRN 217449-71-3
 CNF C50 H44 N2

L30 ANSWER 105 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1998:735541 CAPLUS
 DOCUMENT NUMBER: 130:58899
 TITLE: Aromatic amine compound luminescent material and electroluminescent device with high luminance and luminescent efficiency using it
 INVENTOR(S): Onikubo, Shunichi; Okutsu, Satoshi; Tamano, Michiko; Enokida, Toshio
 PATENT ASSIGNEE(S): Toyo Ink Mfg. Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 36 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10302960	A2	19981113	JP 1997-112088	19970430
JP 3498533	B2	20040216		

PRIORITY APPLN. INFO.: JP 1997-112088 19970430

OTHER SOURCE(S): MARPAT 130:58899
 GI



AB The title material comprises an aromatic amine compound described by the general formula I (n = 3-15; A = group containing (un)substituted (condensed)

aromatic or heterocyclic aromatic group; A = O; Ar1-2 = (un)substituted (condensed) aromatic group; X1-2 = O, S, CO, SO2, CxH2xOCyH2y; (un)substituted C1-20 alkylidene, alkylene, (un)substituted divalent alicyclic group; x, y = 0-20; x + y = 0; R1-10 = H, halo, (un)substituted alkyl, alkoxy, aromatic group, heterocyclic aromatic group,

amino; R1-5 or R6-10 may form ring). The device has a light-emitting layer containing I. The device showed high luminance and luminescent efficiency and long lifetime.

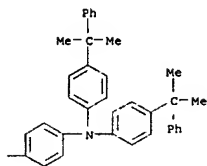
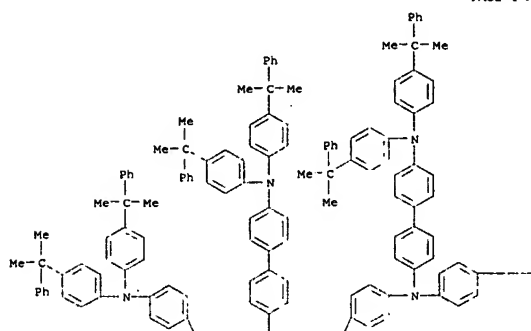
IT 216975-31-4
 RL: DEV (Device component use); USES (Uses)
 (aromatic amine-based emitting materials for electroluminescent

L30 ANSWER 105 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 RN 216973-31-4 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N,N',N'-tetrakis[4'-(bis[4-(1-methyl-1-phenylethyl)phenyl]amino)[1,1'-biphenyl]-4-yl]- (9CI) (CA INDEX NAME)

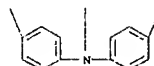
L30 ANSWER 105 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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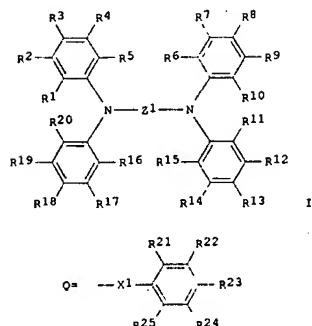
PAGE 2-A



L30 ANSWER 106 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 ACCESSION NUMBER: 1998:651124 CAPLUS
 DOCUMENT NUMBER: 129:308409
 TITLE: Positive-hole injection material for organic electroluminescent device
 INVENTOR(S): Enokida, Toshio; Onikubo, Shunichi; Tamano, Michiko; Okutsu, Satoshi
 PATENT ASSIGNEE(S): Toyo Ink Mfg. Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 43 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

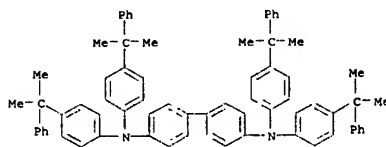
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10265773	A2	19981006	JP 1997-69911	19970324
PRIORITY APPLN. INFO.:			JP 1997-69911	19970324

OTHER SOURCE(S): MARPAT 129:308409
 GI

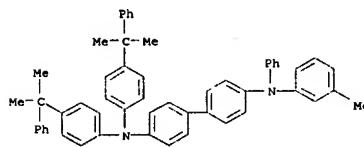


AB The material has a formula 1 [R1-20 = H, halo, alkyl, alkoxy, thioalkoxy, amino, monocyclic group, polycyclic group; R21-25 = H, halo, alkyl, alkoxy, thioalkoxy, amino, monocyclic group, polycyclic group; R21-25 may form a cycloalkyl ring, aryl ring; X1 = direct bond, alkylene, (CR26R27)X(CR28R29)Y, (CR30R31)X(CR32R33)Y, O, S, CO, SO2, SiR34(R35), NR36, PR37, PO(R38); x, y = 0-8 integer; x = y = 0; Z1 = Ar1, Ar2NR39Ar3, Ar4NR40Ar5NR41Ar6; Ar1-6 = arylene; R26-41 = alkyl, monocyclic group, polycyclic group]. The device shows high luminance, efficiency, long life, and storage stability.

L30 ANSWER 106 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 IT 213968-61-7 214337-94-7 214338-06-4
 214338-23-5 214338-24-6 214338-25-7
 214338-26-8 214338-30-4 214338-32-6
 RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
 (organic electroluminescent device containing aromatic pos.-hole injection material)
 RN 213968-61-7 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N,N',N'-tetrakis[4-(1-methyl-1-phenylethyl)phenyl]- (9CI) (CA INDEX NAME)

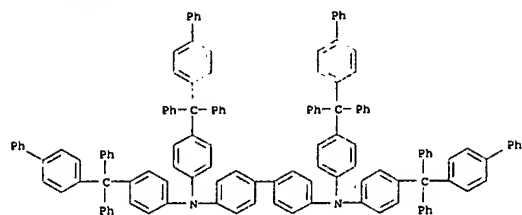


RN 214337-94-7 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N-(3-methylphenyl)-N',N'-bis[4-(1-methyl-1-phenylethyl)phenyl]-N-phenyl- (9CI) (CA INDEX NAME)

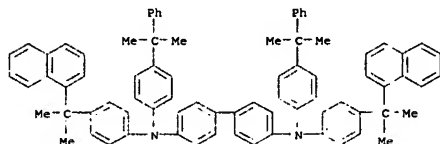


RN 214338-06-4 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N,N',N'-tetrakis[4-([1,1'-biphenyl]-4-ylidiphenylmethyl)phenyl]- (9CI) (CA INDEX NAME)

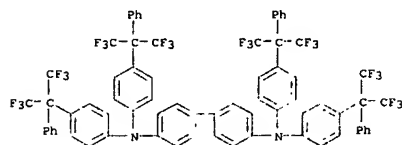
L30 ANSWER 106 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 214338-23-5 CAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-(1-methyl-1-(1-naphthalenyl)ethyl)phenyl]-N,N'-bis[4-(1-methyl-1-phenylethyl)phenyl]- (9CI) (CA INDEX NAME)

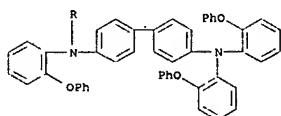


RN 214338-24-6 CAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N,N',N'-tetrakis[4-(2,2,2-trifluoroethyl)phenyl]- (9CI) (CA INDEX NAME)

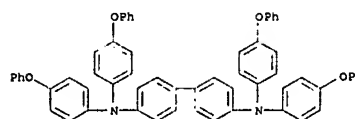


RN 214338-25-7 CAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N,N',N'-tetrakis(4-phenoxyphenyl)- (9CI)

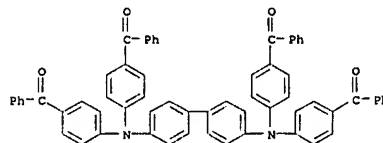
L30 ANSWER 106 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
RN 214338-32-6 CAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N,N',N'-tetrakis(2-phenoxyphenyl)- (9CI) (CA INDEX NAME)



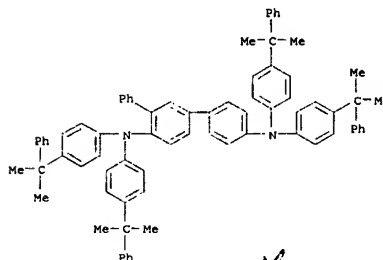
L30 ANSWER 106 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



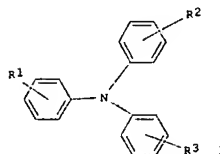
RN 214338-26-8 CAPLUS
CN Methanone, [[1,1'-biphenyl]-4,4'-diylbis(nitrilodi-4,1-phenylene)]tetrakis[phenyl]- (9CI) (CA INDEX NAME)



RN 214338-30-4 CAPLUS
CN [1,1':3',1''-Terphenyl]-4,4'-diamine, N,N,N',N'-tetrakis[4-(1-methyl-1-phenylethyl)phenyl]- (9CI) (CA INDEX NAME)

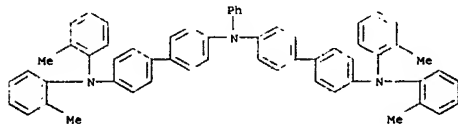


L30 ANSWER 107 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:627446 CAPLUS
DOCUMENT NUMBER: 129:296148
TITLE: Electrophotographic photoreceptor
INVENTOR(S): Sakon, Yota; Umeda, Minoru; Ikegami, Takaaki; Kurimoto, Eiichi
PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 274 pp.
CODEN: JKXXAP
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
PATENT NO. KIND DATE APPLICATION NO. DATE
JP 10254154 A2 19980925 JP 1997-76650 19970312
PRIORITY APPL. INFO.: JP 1997-76650 19970312
OTHER SOURCE(S): MARPAT 129:296148
GI



AB The title photoreceptor comprises a conductive support coated with a photosensitive layer containing a divinylbenzene derivative
o-RCH:CHC6H4CH:CHR (I)
R = carbazolyl, pyridyl, thienyl, indolyl, furyl, (un)substituted Ph, (un)substituted styryl, (un)substituted naphthyl, (un)substituted anthryl (the substituent is selected from di-lower-alkylamino, lower alkyl, lower alkoxy, halo, aralkylamino, and amino) and a triphenylamine derivative
II
(R1-R3 = H, lower alkyl, lower alkoxy, Ph, PhO, halo). Alternatively, 28 types of aromatic amines may be used in place of II. The photoreceptor may comprise a conductive support laminated with a charge-generating layer containing a charge-generating agent and a charge-transporting layer containing I and I compound selected from II and the 28 types of compds. The photoreceptor shows high photosensitivity and durability in repeated use.
IT 214272-66-9
RL: DEV (Device component use); USES (Uses)
(electrophotog. photoreceptor containing divinylbenzene derivative combined with aromatic amine)
RN 214272-66-9 CAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N-[4'-[bis(2-methylphenyl)amino][1,1'-

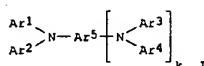
L30 ANSWER 107 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
biphenyl]-4-yl)-N',N'-bis(2-methylphenyl)-N-phenyl]- (9CI) (CA INDEX NAME)



L30 ANSWER 108 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:627184 CAPLUS
DOCUMENT NUMBER: 129:308491
TITLE: Silane compounds for charge carrier in electrophotographic photoreceptor
INVENTOR(S): Yamada, Wataru; Nukata, Katsumi; Iwasaki, Masahiro
PATENT ASSIGNEE(S): Fuji Xerox Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 29 pp.
CODEN: JXXXXF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

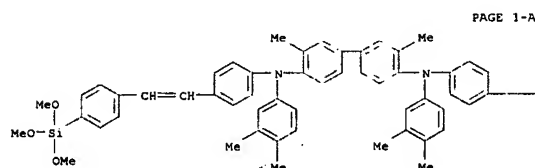
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10251277	A2	19980922	JP 1997-180147	19970704
US 6046348	A	20000404	US 1997-892912	19970715
PRIORITY APPL. INFO.:			JP 1996-187931	A 19960717
			JP 1997-861	A 19970107
			JP 1996-187932	A 19960717
			JP 1996-187933	A 19960717
			JP 1997-121256	A 19970512
			JP 1997-129039	A 19970519
			JP 1997-180147	A 19970704

OTHER SOURCE(S): MARPAT 129:308491
GI

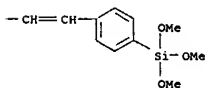


AB The invention related to silane compound I (Ar1-4 = aryl; Ar5 = aryl, arylene; 1-4 of Ar1-5 having -CH=CH-Y-SiR1(3-a)(OR2)a or -CH2CH2-Y-SiR1(3-a)(OR2)a; R1 = H, alkyl, aryl; R2 = H, alkyl, trialkylsilyl; a = 1-3 integer; Y = divalent group; k = 0 or 1). The silane compds. have the excellent solubility and film forming property, and provides the durable film.
IT 214332-15-7P 214332-16-8P 214332-17-9P
214332-18-0P
RL: PNU (Preparation, unclassified); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

L30 ANSWER 108 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
(compds. for charge carrier in electrophotog. photoreceptor)
RN 214332-15-7 CAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(3,4-dimethylphenyl)-3,3'-dimethyl-N,N'-bis[4-[2-[4-(trimethoxysilyl)phenyl]ethenyl]phenyl]- (9CI) (CA INDEX NAME)

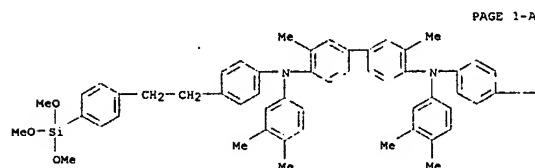


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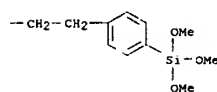
PAGE 1-B

RN 214332-16-8 CAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(3,4-dimethylphenyl)-3,3'-dimethyl-N,N'-bis[4-[2-[4-(trimethoxysilyl)phenyl]ethenyl]phenyl]- (9CI) (CA INDEX NAME)

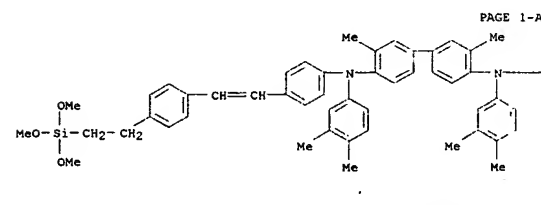


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L30 ANSWER 108 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
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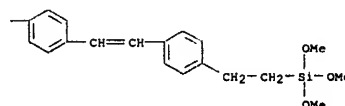


RN 214332-17-9 CAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(3,4-dimethylphenyl)-3,3'-dimethyl-N,N'-bis[4-[2-[4-(trimethoxysilyl)phenyl]ethenyl]phenyl]- (9CI) (CA INDEX NAME)



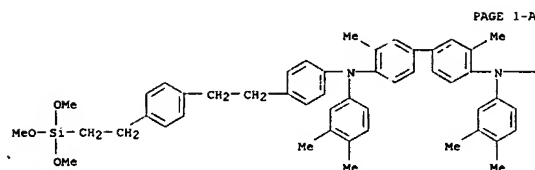
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PAGE 1-B

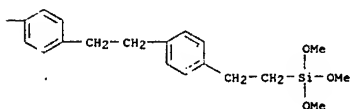


RN 214332-18-0 CAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(3,4-dimethylphenyl)-3,3'-dimethyl-N,N'-bis[4-[2-[4-(trimethoxysilyl)phenyl]ethenyl]phenyl]- (9CI) (CA INDEX NAME)

L30 ANSWER 108 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



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L30 ANSWER 109 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:614437 CAPLUS
 DOCUMENT NUMBER: 129:295965
 TITLE: Organic electroluminescent device with high luminance and polycyclic phosphorescent compound therefor
 INVENTOR(S): Onikubo, Shunichi; Tamano, Michiko; Okutsu, Satoshi; Enokida, Toshio
 PATENT ASSIGNEE(S): Toyo Ink Mfg. Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 59 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10251633	A2	19980922	JP 1997-62568	19970317
JP 3503403	B2	20040308		
EP 866110	A1	19980923	EP 1998-301986	19980317
EP 866110	B1	20041020		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
EP 934992	A1	19990811	EP 1999-106698	19980317
EP 934992	B1	20040721		
R: DE, FR, GB				
US 6280859	B1	20010828	US 1998-42569	19980317
US 2001033944	A1	20011025		
PRIORITY APPLN. INFO.:				
			JP 1997-62568	A 19970317
			EP 1998-301986	A3 19980317

OTHER SOURCE(S): MARPAT 129:295965
 GI

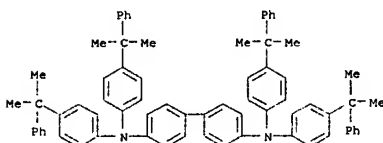
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The claimed compound is I [A = aromatic (condensed) ring, (condensed) heterocycle excluding O1 (E = H or linkage), bivalent group comprising 22 kinds of 2-10 above ring systems which are connected directly or via O, N, S, Cl-20 chain, nonarom. cycle, where the case of A = O3 is excluded: Ar1-4 = (condensed) aromatic group; X1-4 = O, S, CO, SO2, CxH2xOCyH2y (x, y = 0-20; x + y = 0), C2-20 alkyl(id)ene, bivalent alicyclic group; R1-20 = H, halo, alkyl (oxy), aromatic ring, aromatic heterocycle, amino]. Also claimed is an organic electroluminescent device containing I with high luminance and good stability in repeated uses.

IT 213968-61-7
 RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
 (luminescent material; organic electroluminescent device containing polycyclic phosphorescent compound with high luminance)

L30 ANSWER 109 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

RN 213968-61-7 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N,N',N'-tetrakis(4-(1-methyl-1-phenylethyl)phenyl)- (9CI) (CA INDEX NAME)

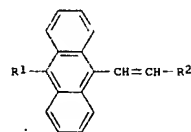
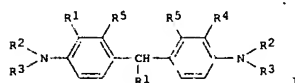


L30 ANSWER 110 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:590841 CAPLUS
 DOCUMENT NUMBER: 129:296147
 TITLE: Electrophotographic photoreceptor with improved sensitivity and durability
 INVENTOR(S): Kurimoto, Eiichi; Umetsu, Minoru; Sakon, Yota; Ikeue, Takashi
 PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 269 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10239878	A2	19980911	JP 1997-59960	19970227
PRIORITY APPLN. INFO.:				
			JP 1997-59960	19970227

OTHER SOURCE(S): MARPAT 129:296147
 GI



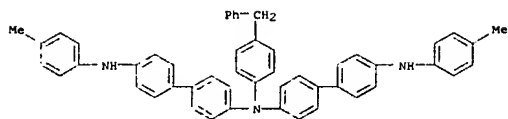
AB The title photoreceptor contains I (R1 = Cl-11-alkyl, Ph, heterocyclyl; R2, R3 = H, lower alkyl, Cl-4-hydroxyalkyl, Cl-4-chloroalkyl; R4, R5 = H, lower alkyl, lower alkoxy, halo; R2-R3 may form N-containing heterocycle) and

II (R1 = H, halo; R2 = aromatic, heterocyclyl; R2 may include substituent selected from halo, CN, di-lower alkylamino, diaralkylamino, lower alkyl, lower alkoxy, and NO2) in a photosensitive layer. 29 Other charge transport materials are also claimed with Markush structures.

IT 214135-61-2
 RL: DEV (Device component use); USES (Uses)
 (charge transport material in electrophotog. photoreceptor with improved sensitivity and durability)

RN 214135-61-2 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N'-(4-methylphenyl)-N-[4'-[4-(methylphenyl)amino][1,1'-biphenyl]-4-yl]-N-[4-(phenylmethyl)phenyl]- (9CI)

L30 ANSWER 110 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
(CA INDEX NAME)



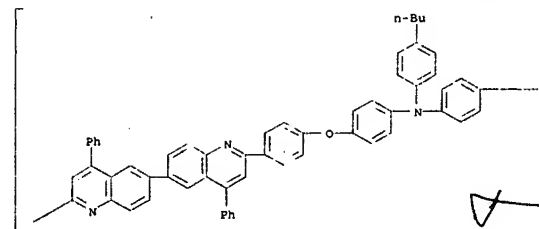
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L30 ANSWER 111 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

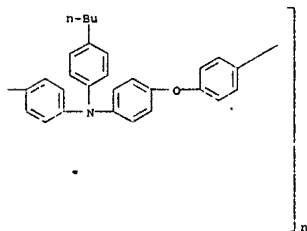
ACCESSION NUMBER: 1998:532320 CAPLUS
DOCUMENT NUMBER: 129:276755
TITLE: Synthesis and characterization of quinoline-triphenylamine copolymers as light-emitting materials
AUTHOR(S): Liu, Yun Qi; Ma, Hong; Liu, Shi; Li, Xiao Chang; Jen, Alex K.-Y.
CORPORATE SOURCE: Dep. Chem., Northeastern Univ., Boston, MA, 02115, USA
SOURCE: Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1998), 39(2), 1089-1090
CODEN: ACPPAY; ISSN: 0032-3934
PUBLISHER: American Chemical Society, Division of Polymer Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Two quinoline-N,N'-diphenyl-N,N'-bis(alkylphenyl)-1,1'-biphenyl-4,4'-diamine derivative copolymers were synthesized. Their electrochem. behavior was investigated by cyclic voltammetry. Both oxidation (p-doping) and reduction (n-doping) processes were reversible. The energy levels of HOMO and LUMO were calculated based on their electrochem. and optical data. TGA and DSC anal. indicated that these copolymers were thermal stable with high T_g (195 °C). The electroluminescent properties of these copolymers is presented.
IT 213814-71-2P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (synthesis and characterization of quinoline-containing copolymer as light-emitting materials)
RN 213814-71-2 CAPLUS
CN Poly[(4,4'-diphenyl-6,6'-biquinoline-2,2'-diyl)-1,4-phenyleneoxy-1,4-phenylene[(4-butylphenyl)imino][1,1'-biphenyl]-4,4'-diyl[(4-butylphenyl)imino]-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)

L30 ANSWER 111 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L30 ANSWER 112 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:398346 CAPLUS
DOCUMENT NUMBER: 129:87816
TITLE: Material for organoelectroluminescence device and organoelectroluminescence device using the material
INVENTOR(S): Tamano, Michiko; Onikubo, Toshikazu; Okutsu, Satoshi; Enokida, Toshio
PATENT ASSIGNEE(S): Toyo Ink Manufacturing Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 26 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 848579	A2	19980617	EP 1997-310157	19971216
EP 848579	A3	19980902		
EP 848579	B1	20030326		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, LV, FI, RO, SI, LT, A2		19980902		
JP 10233287	A2	19980902	JP 1997-301457	19971104
JP 3606025	B2	20050105		
US 5948941	A	19990907	US 1997-990193	19971212
PRIORITY APPLN. INFO.:			JP 1996-335217	A 19961216
			JP 1997-301457	A 19971104

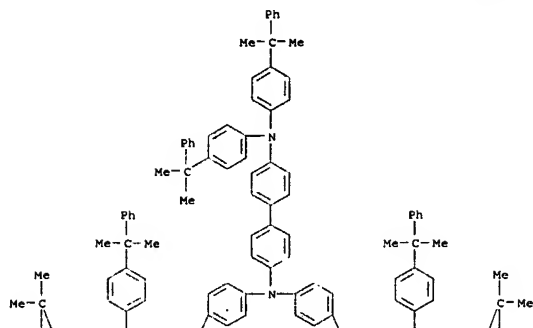
OTHER SOURCE(S): MARPAT 129:87816
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Compds. suitable for use in electroluminescent devices are described by such general formula as I (A= Q, Q1, Q2; Ar1-6 = independently selected (un)substituted aryl groups; Xi-6 = independently selected O, S, C=O, SO2, Si(B1)B2, N(B1), Pb1, P(O)B1-, -(CH2)x-O-(CH2)y-, (un)substituted alkylene groups, or (un)substituted alicyclic moieties; B1 and B2 = independently selected (un)substituted alkyl group or a (un)substituted aryl group, etc. The materials may be hole-injecting materials.
Devices using the materials, including display devices, are also described, as is the use of the materials in the devices.
IT 209165-19-5 209165-20-8 209165-21-9
RL: DEV (Device component use); USES (Uses) (materials for organic electroluminescent devices based on benzene and triphenylamine derivs. and devices using them)
RN 209165-19-5 CAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N-[4'-[bis[4-(1-methyl-1-phenylethyl)phenyl]amino][1,1'-biphenyl]-4-yl]-N-[4'-[bis[4-(1-methyl-1-phenylethyl)phenyl]amino][1,1'-biphenyl]-4-yl]-N',N'-bis[4-(1-methyl-1-phenylethyl)phenyl]- (9CI) (CA INDEX NAME)

L30 ANSWER 112 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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RN 209165-20-8 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine,
 N,N-bis[4'-[bis(4-phenoxyphenyl)amino][1,1'-
 biphenyl]-4-yl]-N',N'-bis(4-phenoxyphenyl)- (9CI) (CA INDEX NAME)

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L30 ANSWER 112 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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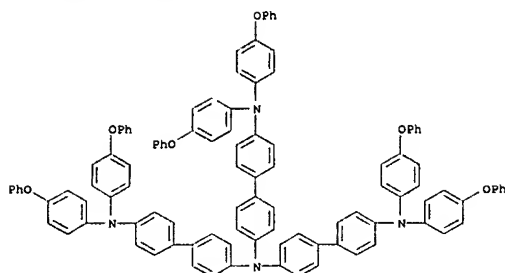
PAGE 2-A



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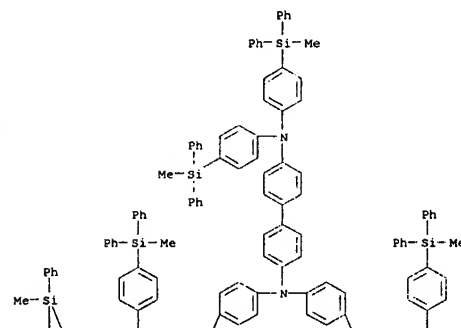


L30 ANSWER 112 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 209165-21-9 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N-bis[4'-[bis(4-
 (methylidiphenylsilyl)phenyl)amino][1,1'-biphenyl]-4-yl]-N',N'-bis[4-
 (methylidiphenylsilyl)phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

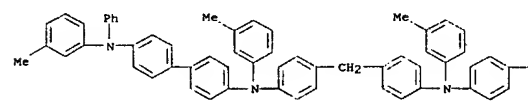


L30 ANSWER 113 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1998:253128 CAPLUS
 DOCUMENT NUMBER: 128:315230
 TITLE: Electroluminescent device using polynuclear arylamine
 INVENTOR(S): Hu, Nan-Xing; Ong, Beng S.; Xie, Shuang; Popovic,
 Zoran D.; Hor, Ah-Mee
 PATENT ASSIGNEE(S): Xerox Corp., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

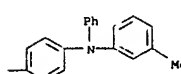
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10106750	A2	19980424	JP 1997-229820	19970826
US 5763110	A	19980609	US 1996-707162	19960903
PRIORITY APPLN. INFO.:			US 1996-707162	A 19960903

OTHER SOURCE(S): MARPAT 128:315230
 AB The EL device uses a polynuclear arylamine R1R2NAIN(R3)QN(R4)AZR5R6 (R1-R6 = aryl; R1, R2 = biaryl; Q = hydrocarbon group) as a means of pos. hole implanting. The device shows improved heat and operation stability.
 IT 206352-80-9P 206352-82-1P
 RI: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (electroluminescent device using polynuclear arylamine as a means of pos. hole implanting)
 RN 206352-80-9 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-(methylene)-4,1-phenylene)bis[N,N'-bis(3-methylphenyl)-N'-phenyl]- (9CI) (CA INDEX NAME)

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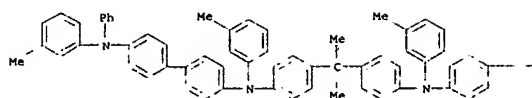
PAGE 1-B



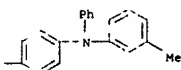
RN 206352-82-1 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-(1-methylethylidene)di-4,1-phenylene)bis[N,N'-bis(3-methylphenyl)-N'-phenyl]- (9CI) (CA INDEX NAME)

L30 ANSWER 113 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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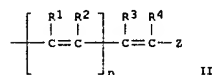
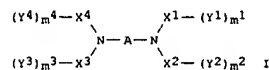


L30 ANSWER 114 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 1597:678708 CAPLUS
 DOCUMENT NUMBER: 128:17237
 TITLE: Organic electroluminescent device elements
 INVENTOR(S): Enokida, Toshio; Tamano, Michiko
 PATENT ASSIGNEE(S): Toyo Ink Mfg. Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 33 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09268284	A2	19971014	JP 1996-78501	19960401
JP 3564859	B2	20040915	JP 1996-78501	19960401

PRIORITY APPLN. INFO.: JP 1996-78501 19960401

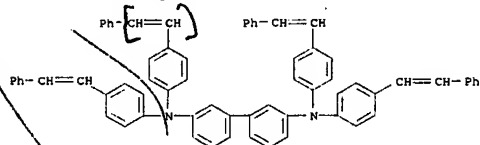
OTHER SOURCE(S): MARPAT 128:17237
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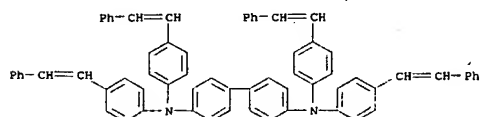
AB The elements comprise the phosphors I containing II; I [A, X1-4 = C2-20 arylene; m1, m2, m3, m4 = 0-2; Y1-4 = II] II [R1-4 = H, (un)substituted alkyl, (un)substituted aryl, CN; Z = (un)substituted aryl; n = 0, 1; a tertiary amine derivative (B1,2N)G(NB3,4) formed between the phosphor and the anode [B1-4 = (un)substituted C6-20 aryl; G = (un)substituted arylene]; and a metal complex Q1,2GaL formed between the phosphor and the cathode [Q1,2 = (un)substituted hydrobenzoquinoline derivative; L = halo, (un)substituted (cyclo)alkyl, aryl cong. optional (un)substituted N, OR = L].
 IT 198903-48-9 198903-49-0 198903-52-5
 198903-56-9 198903-58-1
 RL: DEV (Device component use); USES (Uses)

L30 ANSWER 114 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

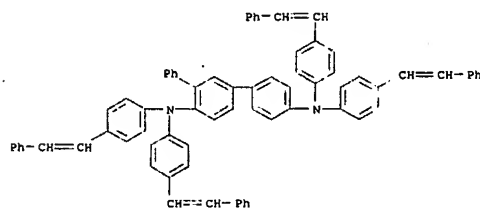
(org. electroluminescent device elements)
 RN 198903-48-9 CAPLUS
 CN [1,1'-Biphenyl]-3,3'-diamine, N,N,N',N'-tetrakis[4-(2-phenylethenyl)phenyl]- (9CI) (CA INDEX NAME)



RN 198903-49-0 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N,N',N'-tetrakis[4-(2-phenylethenyl)phenyl]- (9CI) (CA INDEX NAME)

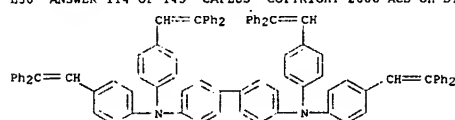


RN 198903-52-5 CAPLUS
 CN [1,1':3',1''-Terphenyl]-4,4'-diamine, N,N,N',N'-tetrakis[4-(2-phenylethenyl)phenyl]- (9CI) (CA INDEX NAME)

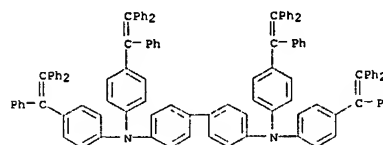


RN 198903-56-9 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N,N',N'-tetrakis[4-(2,2-diphenylethenyl)phenyl]- (9CI) (CA INDEX NAME)

L30 ANSWER 114 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



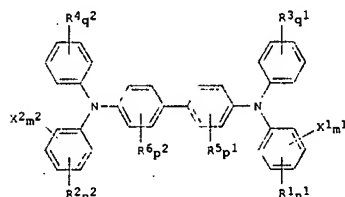
RN 198903-58-1 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N,N',N'-tetrakis[4-(triphenylethenyl)phenyl]- (9CI) (CA INDEX NAME)



L30 ANSWER 115 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1997:632450 CAPLUS
 DOCUMENT NUMBER: 127:313102
 TITLE: Electrophotographic photoreceptor
 INVENTOR(S): Mitsumori, Teruyuki
 PATENT ASSIGNEE(S): Mitsubishi Chemical Corporation, Japan
 SOURCE: Eur. Pat. Appl., 35 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 795791	A1	19970917	EP 1997-103985	19970310
EP 795791	B1	20000913		
R: DE, FR, GB				
JP 09244278	A2	19970919	JP 1996-52964	19960311
JP 3584600	B2	20041104		
PRIORITY APPLN. INFO.:			JP 1996-52964	A 19960311

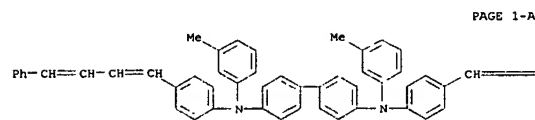
OTHER SOURCE(S): MARPAT 127:313102
 GI



AB An electrophotog. photoreceptor comprises, on an electroconductive substrate, a photosensitive layer containing an arylamine compound having the formula I, wherein X1 has the formula (CR7=CR8)ICR9=CR10R11 and X2 has the formula (CR12=CR13)hCR14=CR15R16 (R1-6 = halogen, alkyl, alkoxy, aryl, dialkylamino, diarylamino, diaralkylamino, or diheterocyclylamino; m1, m2, n1, n2, p1, p2, q1, q2 = an integer of 0-4; R7-16 = H, alkyl, alkoxy, aryl, or heterocyclyl; i = an integer of 1-4).

IT 197234-73-4 197234-74-5 197234-75-6
 197234-76-7 197234-77-8 197234-81-4
 197234-83-6 197234-87-0

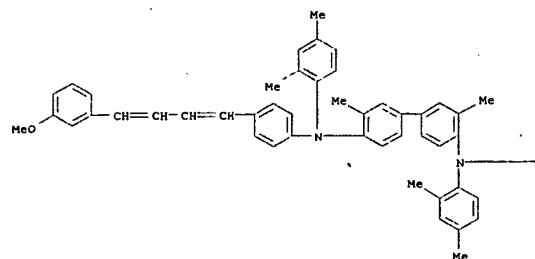
L30 ANSWER 115 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



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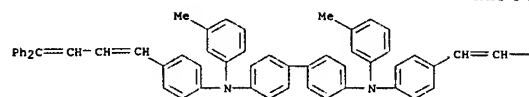
=CH-CH=CH-Ph

RN 197234-76-7 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(2,4-dimethylphenyl)-N,N'-bis[4-(4-methoxyphenyl)-1,3-butadienyl]phenyl-3,3'-dimethyl- (9CI) (CA INDEX NAME)



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L30 ANSWER 115 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 RL: TEM (Technical or engineered material use): USES (Uses)
 (electrophotog. photoreceptors with charge-transporting layers contg.)
 RN 197234-73-4 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(4-(4,4-diphenyl-1,3-butadienyl)phenyl)-N,N'-bis(3-methylphenyl)- (9CI) (CA INDEX NAME)

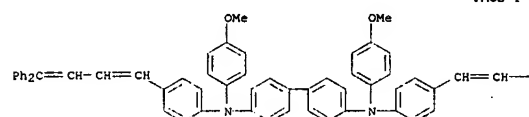


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-CH=CPh2

RN 197234-74-5 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-(4,4-diphenyl-1,3-butadienyl)phenyl]-N,N'-bis(4-methoxyphenyl)- (9CI) (CA INDEX NAME)



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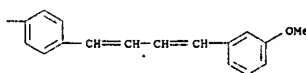
PAGE 1-B

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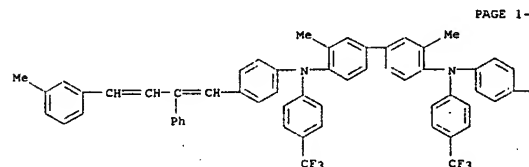
RN 197234-75-6 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(3-methylphenyl)-N,N'-bis[4-(4-phenyl-1,3-butadienyl)phenyl]- (9CI) (CA INDEX NAME)

L30 ANSWER 115 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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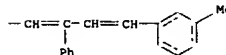


RN 197234-77-8 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-N,N'-bis[4-(4-(3-methylphenyl)-2-phenyl-1,3-butadienyl)phenyl]-N,N'-bis[4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



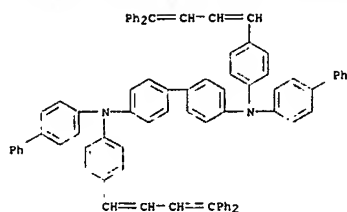
PAGE 1-A

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RN 197234-81-4 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis([1,1'-biphenyl]-4-yl)-N,N'-bis[4-(4,4-diphenyl-1,3-butadienyl)phenyl]- (9CI) (CA INDEX NAME)

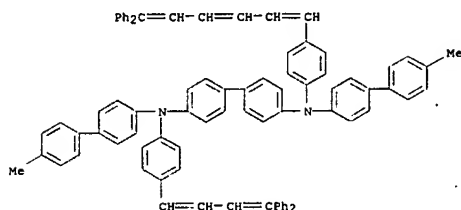
L30 ANSWER 115 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



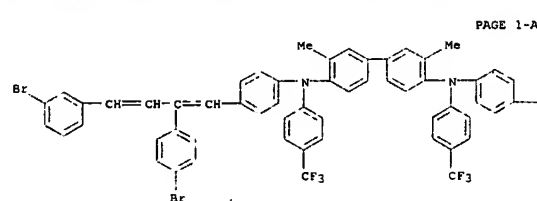
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RN      197234-83-6 CAPLUS
CN      [1,1'-Biphenyl]-4,4'-diamine,
N-[4-(4,4-diphenyl-1,3-butadienyl)phenyl]-N'-
[4-(6,6-diphenyl-1,3,5-hexatrienyl)phenyl]-N,N'-bis(4'-methyl[1,1'-
biphenyl]-4-yl)- (9CI) (CA INDEX NAME)

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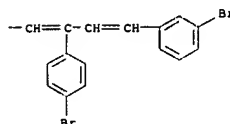


RN 197234-87-0 CAPLUS
CN. [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-[4-(3-bromophenyl)-2-(4-bromophenyl)-1,3-butadienyl]phenyl]-3,3'-dimethyl-N,N'-bis[4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



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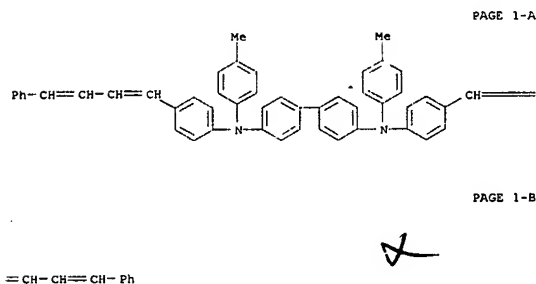
IT 197234-90-58
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(Preparation and use in preparing charge-transporting layers for electrophotog. photoreceptors)
RN 197234-90-5 CARLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(4-methylphenyl)-N,N'-bis[4-(4-phenyl-1,3-butadienyl)phenyl]- (9CI) (C4 INDEX NAME)

L30 ANSWER 116 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 145
 1997: 0823 CAPLUS
 DOCUMENT NUMBER: 126:11013
 TITLE: Electrophotographic photoconductor containing tetramine or hexamine
 INVENTOR(S): Tomyama, Hiromitsu; Ihara, Ikuko; Matsunabe, Takanobu; Anzai, Mitsutoshi
 PATENT ASSIGNEE(S): Hodogaya Chemical Co Ltd, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 26 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

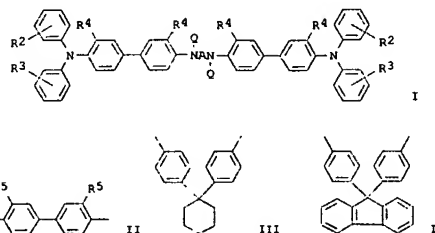
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08292586	A2	19961105	JP 1995-119066	19950421
PRIORITY APPLN. INFO.:			JP 1995-119066	19950421

OTHER SOURCE(S): MARPAT 126:111013
GI



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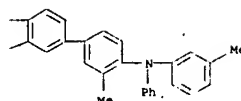
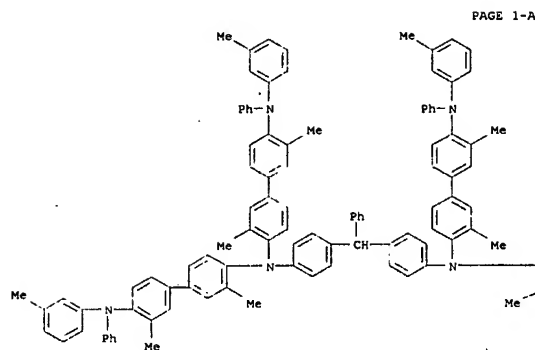
AB The photoconductor contains tetramine 1 [Q = R1C6H4; R1-3 = H, lower alkyl, lower alkoxy, (substituted) phenyl; R4 = H, lower alkyl, lower alkoxy, Cl; R = m-C6H4, p-C6H4, 9,10-anthracenediyl, II, naphthalenediyl, III, IV, p-C6H4-p-XC6H4; R5 = H, lower alkyl, lower alkoxy, Cl; X = CH2, CHPh, O, S] as charge-transporting agent. The photoconductor shows good heat resistance, prevention of crystallization, high sensitivity, and good durability.

IT	185846-76-8 185846-79-1	REL: TEM (Technical or engineered material use): USES (Uses) (charge-transferring agent; electrophotog. photoconductor containing tetramine or hexamine as charge-transferring agent)
RN	185846-76-8 CAPLUS	
CN	[1,1'-Biphenyl]-4,4'-diamine, N,N'-[bis(phenylmethylene)di-4,1- phenylene]N-[3,3'-dimethyl-4''-(3-methylphenyl)phenylamino][1,1'- biphenyl]-4-yl]-3,3'-dimethyl-N''-(3-methylphenyl)-N'-phenyl- (9CI) (CA INDEX NAME)	

L30 ANSWER 116 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

L30 ANSWER 116 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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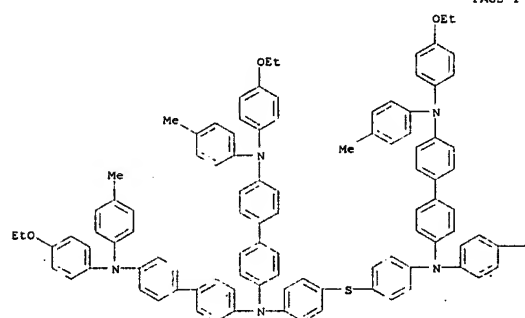
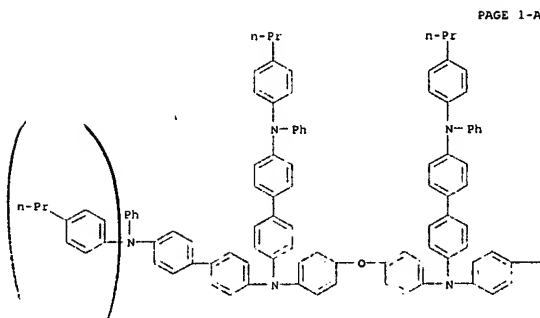
RN 185846-79-1 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N''-(oxydi-4,1-phenylene)bis[N'-phenyl-N-
 [4'-[phenyl(4-propylphenyl)amino][1,1'-biphenyl]-4-yl]-N''-(4-propylphenyl)-
 (9CI) (CA INDEX NAME)

X

L30 ANSWER 116 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

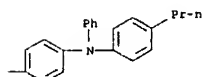
L30 ANSWER 116 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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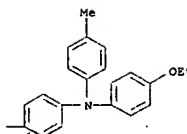


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IT 185846-80-4
 RL: TEM (Technical or engineered material use); USES (Uses)
 (electrophotog. photoconductor containing tetramine or hexamine as
 charge-transporting agent)
 RN 185846-80-4 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N''-(thiodi-4,1-phenylene)bis[N'-
 (4-ethoxyphenyl)-N-(4'-[(4-ethoxyphenyl)(4-methylphenyl)amino][1,1'-biphenyl]-
 4-yl)-N''-(4-methylphenyl)- (9CI) (CA INDEX NAME)



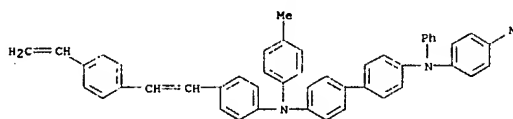
L30 ANSWER 117 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1996:746286 CAPLUS
 DOCUMENT NUMBER: 126:39392
 TITLE: Organic thin-film electroluminescent device
 INVENTOR(S): Ito, Juichi; Sato, Hisaya; Hayashi, Takako
 PATENT ASSIGNEE(S): Toppan Printing Co Ltd, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JKXXAF

DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08259935	A2	19961008	JP 1995-65611	19950324
JP 3646339	B2	20050511	JP 1995-65611	19950324

PRIORITY APPLN. INFO.:
 GI

L30 ANSWER 117 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



X

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB An organic thin-film electroluminescent device, suited for use in optical displays, comprises a multilayer structure including an organic light-emitting layer and a hole injection/transport layer containing a compound

represented by I (G1 = CH or N; G2, G3 = H, C1-4 alkyl, alkoxy, dialkylamino, Q1, Q2, Q3, Q4, a group containing ≥1 benzene, naphthalene, anthracene, and perylene rings, benzene or naphthalene rings condensed with the Ph group in I; R = H, C1-4 alkyl, alkoxy, and dialkylamino).

IT 184159-38-4
 RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
 (organic thin-film electroluminescent device)

RN 184159-38-4 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N-[4-(2-(4-ethenylphenyl)ethenyl)phenyl]-N,N'-bis(4-methylphenyl)-N'-phenyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 184159-37-3
 CMF C48 H40 N2

L30 ANSWER 118 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1996:560311 CAPLUS
 DOCUMENT NUMBER: 125:196755
 TITLE: Polymeric carrier-transporting materials for electroluminescent devices, electrophotographic photoreceptors, etc.
 INVENTOR(S): Ito, Juichi; Sato, Hisaya; Hayashi, Takako
 PATENT ASSIGNEE(S): Toppan Printing Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.
 CODEN: JKXXAF

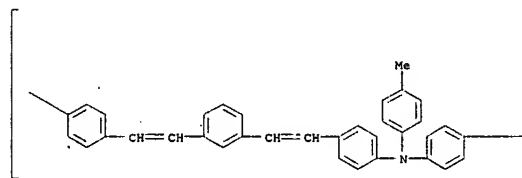
DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08157575	A2	19960618	JP 1994-330622	19941207
JP 3482719	B2	20040106	JP 1994-330622	19941207

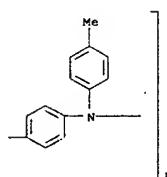
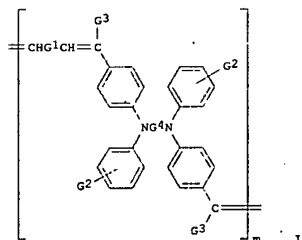
PRIORITY APPLN. INFO.:
 GI

L30 ANSWER 118 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 methylphenyl)imino]-1,4-phenylene-1,2-ethenediyl-1,3-phenylene-1,2-ethenediyl-1,4-phenylene) (9CI) (CA INDEX NAME)

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X

AB The title materials capable of forming carrier-transporting layers by spin coating or casting with Tg ≥120° and good mech. strength have the general formula I [m = d.p.; G1 = direct bond, arylene, alkylene, alkylenedioxy, other linking group; G2 = (halo)alkyl; G3 = H, alkyl; G4 = phenylene, biphenylene, other linking group]. N,N'-bis(4-formylphenyl)-N,N'-di-p-tolyl-p-phenylenediamine was prepared and polymerized with m-xyllylbis(triphenylphosphonium chloride).

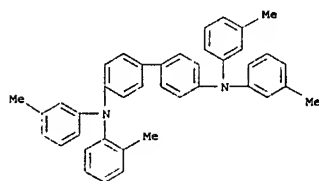
IT 181064-92-6P
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (polymeric carrier-transporting materials for electroluminescent devices and electrophotog. photoreceptors)

RN 181064-92-6 CAPLUS
 CN Poly[[(4-methylphenyl)imino][1,1'-biphenyl]-4,4'-diyl]-(4-

L30 ANSWER 119 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1596:537722 CAPLUS
 DOCUMENT NUMBER: 125:180939
 TITLE: Electroluminescent systems
 INVENTOR(S): Hueppauff, Martin; Fenske, Dieter; Schmid, Guenter
 PATENT ASSIGNEE(S): Bosch, Robert, G.m.b.H., Germany
 SOURCE: Ger. Offen., 6 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19502541	A1	19960808	DE 1995-19502541	19950127
WO 9623044	A1	19960801	WO 1995-DE1821	19951219
W: JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 753035	A1	19970115	EP 1995-942023	19951219
R: CH, DE, FR, GB, IT, LI, SE				
US 5767622	A	19980616	US 1996-693335	19960815
PRIORITY APPLN. INFO.:			DE 1995-19502541	A 19950127
			WO 1995-DE1821	W 19951219

AB Electroluminescent systems are described which employ electroluminescent systems comprising inorg. particles or clusters separated by an organic binder. The particles may be nanoparticles, and the binder may comprise a network of ligands.
 IT 180638-30-6
 RL: TEM (Technical or engineered material use); USES (Uses) (electroluminescent systems employing inorg. particles spaced within organic binders)
 RN 180638-30-6 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N-(2-methylphenyl)-N,N',N'-tris(3-methylphenyl)- (9CI) (CA INDEX NAME)



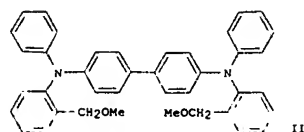
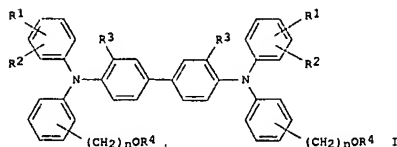
X

L30 ANSWER 120 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1996:340536 CAPLUS
 DOCUMENT NUMBER: 125:71742
 TITLE: Electrophotographic photosensitive materials and electrophotographic photoreceptors using them
 INVENTOR(S): Nukada, Katsumi; Iwasaki, Masahiro; Imai, Akira
 PATENT ASSIGNEE(S): Fujii Xerox Co Ltd, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08054744	A2	19960227	JP 1994-209398	19940811
JP 2827915	B2	19981125		
PRIORITY APPLN. INFO.:			JP 1994-209398	19940811

OTHER SOURCE(S): MARPAT 125:71742

GI

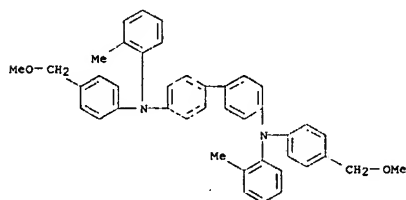


AB The title materials comprise a benzidine compound I (R1-3 = H, halo, alkyl, alkoxy, substituted amino; R4 = alkyl, (substituted) aryl, aralkyl; n = 1-5). The photoreceptors containing the compds. as charge-transporting agents are also claimed. The compds. show high solubility and compatibility and the photoreceptors exhibit high photosensitivity and durability in repeated

L30 ANSWER 119 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

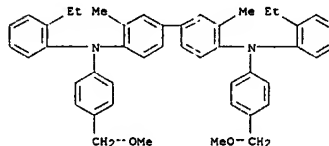
L30 ANSWER 120 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 use. Thus, a photoreceptor was prepd. by using a charge-generating layer contg. chlorogallium phthalocyanine and a charge-transporting layer

II.
 IT 178237-33-7 178237-43-9
 RL: DEV (Device component use); USES (Uses) (charge-transporting agent; electrophotog. photoreceptors containing benzidine compds. for solubility and compatibility)
 RN 178237-33-7 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(2-ethylphenyl)-N,N'-bis(4-methoxymethylphenyl)- (9CI) (CA INDEX NAME)



X

RN 178237-43-9 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(2-ethylphenyl)-N,N'-bis(4-methoxymethylphenyl)-3,3'-dimethyl- (9CI) (CA INDEX NAME)

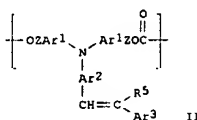
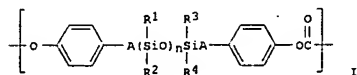


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L30 ANSWER 121 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1996:318365 CAPLUS
 DOCUMENT NUMBER: 124:356197
 TITLE: Electrophotographic photoreceptor with excellent durability
 INVENTOR(S): Itami, Akihiko
 PATENT ASSIGNEE(S): Konishiroku Photo Ind, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 30 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08062864	A2	19960308	JP 1994-215288	19940817
PRIORITY APPLN. INFO.:			JP 1994-215288	19940817

GI



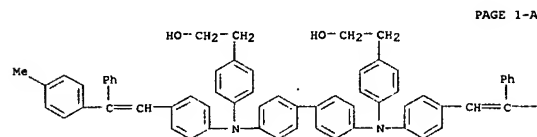
AB The title photoreceptor comprises a photosensitive layer containing polycarbonates of I (A = cl-6 alkylene, R1-4 = alkyl, aryl; n = 1-200) and

II (Ar1, Ar2 = arylene; Ar3 = aryl, heterocyclyl; R5 = H, alkyl, alkoxy, aryl, heterocyclyl; R5 together with Ar3 may form a ring; Z = alkylene, arylene). Similar polycarbonates are also claimed. The photoreceptor showed excellent abrasion-resistant properties.

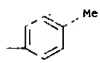
IT 176851-02-8 176851-05-1
 RL: DEV (Device component use); USES (Uses)
 (electrophotog. photoreceptor containing)

RN 176851-02-9 CAPLUS
 CN Carbonic dichloride, polymer with 4,4'-[[1,1'-biphenyl]-4,4'-diylbis[[4-(2,2-diphenylethenyl)phenyl]imino]]bis[phenol] and α-[[4-(4-hydroxyphenyl)methyl]dimethylsilyl]oxy-[[4-(4-hydroxyphenyl)methyl]dimethylsilyl]oxy]poly[oxy(dimethylsilylene)] (9CI) (CA INDEX NAME)

L30 ANSWER 121 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 CMF C70 H60 N2 O2

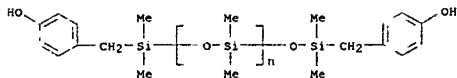


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CM 2

CRN 173342-66-0
 CMF (C2 H6 O Si)n C18 H26 O3 Si2
 CCI PMS



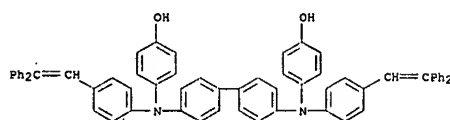
CM 3

CRN 75-44-5
 CMF C C12 O



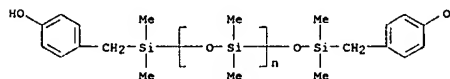
L30 ANSWER 121 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

CM 1
 CRN 176851-01-7
 CMF C64 H48 N2 O2



CM 2

CRN 173342-66-0
 CMF (C2 H6 O Si)n C18 H26 O3 Si2
 CCI PMS



CM 3

CRN 75-44-5
 CMF C C12 O



RN 176851-05-1 CAPLUS
 CN Carbonic dichloride, polymer with 4,4'-[[1,1'-biphenyl]-4,4'-diylbis[[4-(2-(4-methylphenyl)-2-phenylethenyl)phenyl]imino]]bis[benzeneethanol] and α-[[4-(4-hydroxyphenyl)methyl]dimethylsilyl]oxy-[[4-(4-hydroxyphenyl)methyl]dimethylsilyl]oxy]poly[oxy(dimethylsilylene)] (9CI) (CA INDEX NAME)

CM 1

CRN 176851-04-0

L30 ANSWER 122 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:867611 CAPLUS
 DOCUMENT NUMBER: 123:285572
 TITLE: Preparation of pyrene derivatives as electroluminescent materials
 INVENTOR(S): Tamoto, Nozomi; Nagai, Kazuhiro; Adachi, Chihaya; Sakon, Hirota
 PATENT ASSIGNEE(S): Ricoh Kk, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07101911	A2	19950418	JP 1993-271360	19931004
JP 3549555	B2	20040804		
PRIORITY APPLN. INFO.:			JP 1993-271360	19931004

OTHER SOURCE(S): MARPAT 123:285572

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title compds. I (R1 - R3 = halo, cyano, etc.; l = 0 - 9; m = 0 - 4; n = 0 - 5) are prepared. An electroluminescent element containing the title compound

II (preparation given) gave emission with high luminance for 1 mo.

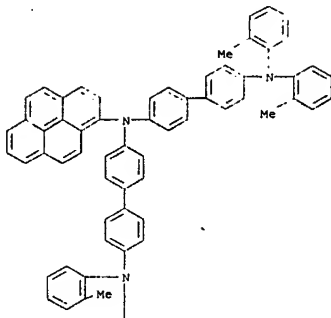
IT 169195-01-1P
 RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(preparation of pyrene derivs. as electroluminescent materials)

RN 169195-01-1 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N-[4'-(bis(2-methylphenyl)amino)]-[1,1'-biphenyl]-4-yl-N',N'-bis(2-methylphenyl)-N-1-pyrenyl- (9CI) (CA INDEX NAME)

L30 ANSWER 122 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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L30 ANSWER 123 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

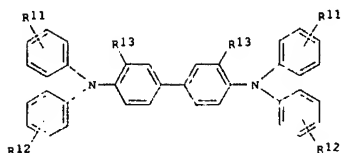
ACCESSION NUMBER: 1995:769803 CAPLUS
 DOCUMENT NUMBER: 123:183664
 TITLE: Amine compound and electro-luminescence device comprising same.
 INVENTOR(S): Tomiyama, Hiromitsu; Oshino, Masahiko; Nakanishi, Naoko; Suzuki, Mutsumi; Fukuyama, Masao; Murakami, Mutsuaki; Nambu, Taro
 PATENT ASSIGNEE(S): Hodogaya Chemical Co., Ltd., Japan; Matsushita Electric Industrial Co., Ltd.
 SOURCE: Eur. Pat. Appl., 98 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 650955	A1	19950503	EP 1994-117206	19941031
EP 650955	B1	19980819		
R: DE, FR, GB				
JP 07126615	A2	19950516	JP 1993-273883	19931101
JP 3194657	B2	20010730		
JP 07126225	A2	19950516	JP 1993-293800	19931101
JP 3574860	B2	20041006		
JP 07126226	A2	19950516	JP 1993-293801	19931101
JP 3220950	B2	20011022		
JP 2001273978	A2	20011005	JP 2001-49489	19931101
JP 3529735	B2	20040524		
JP 07331238	A2	19951219	JP 1994-132744	19940615
JP 08003122	A2	19960109	JP 1994-155470	19940615
JP 08100172	A2	19960416	JP 1994-236622	19940930
JP 3274939	B2	20020415		
JP 2001181240	A2	20010703	JP 2000-332663	20001031
JP 3567323	B2	20040922		
JP 2002343577	A2	20021129	JP 2002-83871	20020325
JP 3745296	B2	20060215		
JP 2004182740	A2	20040702	JP 2004-21884	20040129
PRIORITY APPLN. INFO.:				
			JP 1993-273883	A 19931101
			JP 1993-293800	A 19931101
			JP 1993-293801	A 19931101
			JP 1994-132744	A 19940615
			JP 1994-155470	A 19940615
			JP 1994-236622	A 19940930
			JP 2001-49489	A3 19931101

OTHER SOURCE(S): MARPAT 123:183664
 GI

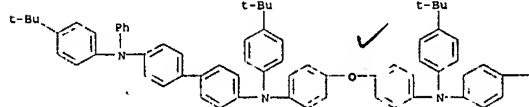
L30 ANSWER 123 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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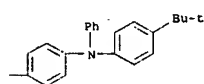


AB Novel amine compds. useful as electron-transporting materials to be incorporated in organic electro-luminescence (EL) devices are described, e.g., having the formula I [R1, R2 = H, alkyl, alkoxy, Ph, alkylphenyl, alkoxyphenyl, with the proviso that at least one of R1 and R2 is n-Bu, i-Bu, sec-Bu, tert-Bu, Ph, alkoxyphenyl, alkylphenyl; R3 = H, alkyl, alkoxy, Cl]. Five more Markush structures are given. The organic EL device can find wide application in various display units, requires a low applied voltage and exhibits a high luminance and an excellent stability.
 IT 167218-65-7 167218-67-9 167218-69-1
 167218-81-7 167218-84-0 167218-86-2
 167218-87-3 167218-88-4 167218-89-5
 RL: DEV (Device component use); USES (Uses)
 (Amine compound as electron-transporting material for electroluminescent devices)
 RN 167218-65-7 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-(oxydi-4,1-phenylene)bis[N,N'-bis[4-(1,1-dimethylethyl)phenyl]-N'-phenyl- (9CI) (CA INDEX NAME)]

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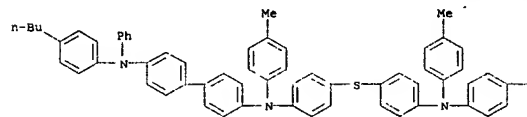


L30 ANSWER 123 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

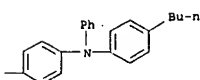


RN 167218-67-9 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-(thiodi-4,1-phenylene)bis[N,N'-(4-butylphenyl)-N-(4-methylphenyl)-N'-phenyl- (9CI) (CA INDEX NAME)]

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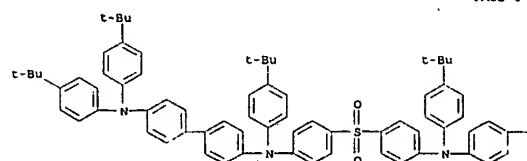


PAGE 1-B



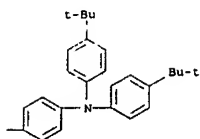
RN 167218-69-1 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-(sulfonyldi-4,1-phenylene)bis[N,N'-(1,1-dimethylethyl)phenyl]- (9CI) (CA INDEX NAME)]

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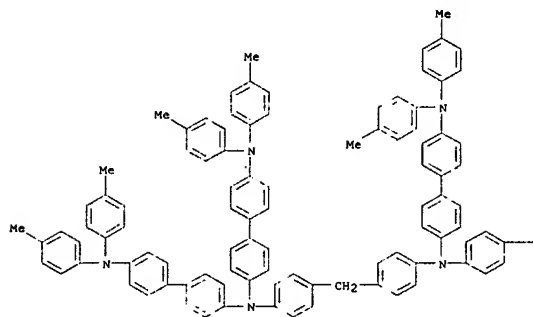
L30 ANSWER 123 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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RN 167218-81-7 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-(methylenedi-4,1-phenylene)bis[N-(4'-
 (bis(4-methylphenyl)amino)[1,1'-biphenyl]-4-yl)-N',N'-bis(4-methylphenyl)-
 (9CI) (CA INDEX NAME)

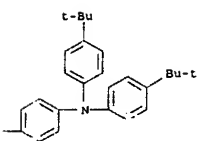
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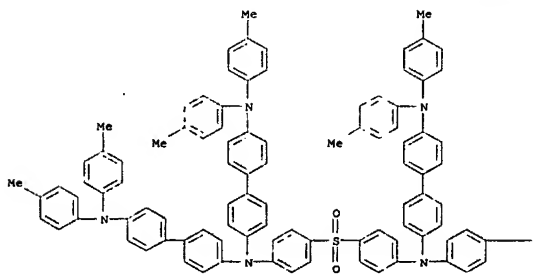
L30 ANSWER 123 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

PAGE 1-B



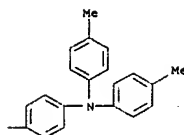
RN 167218-86-2 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-(sulfonyldi-4,1-phenylene)bis[N-(4'-
 (bis(4-methylphenyl)amino)[1,1'-biphenyl]-4-yl)-N',N'-bis(4-methylphenyl)-
 (9CI) (CA INDEX NAME)

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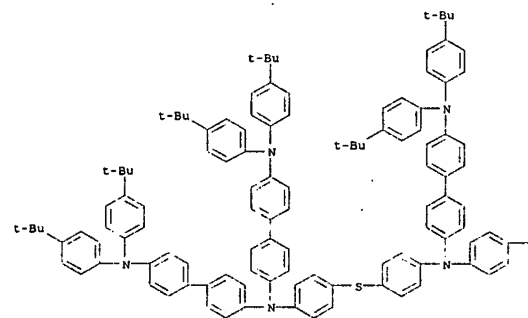
L30 ANSWER 123 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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RN 167218-84-0 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine,
 N,N'-(thiodi-4,1-phenylene)bis[N-(4'-[bis(4-
 (1,1-dimethylethyl)phenyl)amino][1,1'-biphenyl]-4-yl)-N',N'-bis(4-(1,1-
 dimethylethyl)phenyl)- (9CI) (CA INDEX NAME)

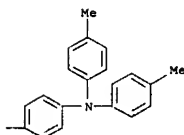
PAGE 1-A



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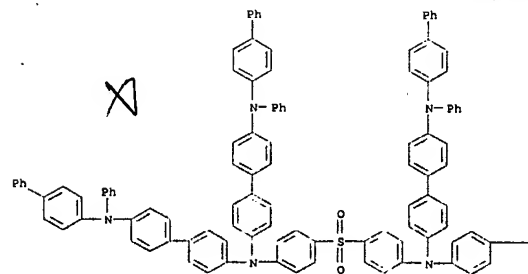
L30 ANSWER 123 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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RN 167218-87-3 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine,
 N,N'-(sulfonyldi-4,1-phenylene)bis[N-(4'-[bis(4-
 (1,1-dimethylethyl)phenyl)amino][1,1'-biphenyl]-4-yl)-N',N'-bis(4-
 (1,1-dimethylethyl)phenyl)- (9CI) (CA INDEX NAME)

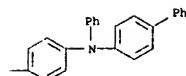
PAGE 1-A



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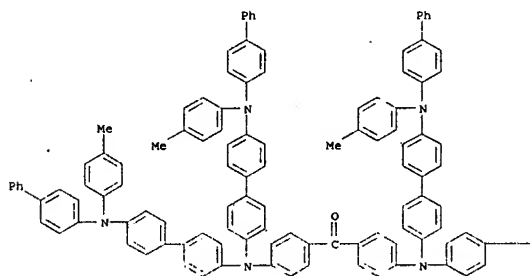
L30 ANSWER 123 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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RN 167218-88-4 CAPLUS
 CN Methanone,
 bis[4-[bis(4'-[[1,1'-biphenyl]-4-yl(4-methylphenyl)amino][1,1'-
 biphenyl]-4-yl)amino]phenyl]- (9CI) (CA INDEX NAME)

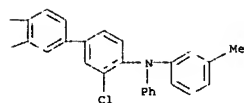
PAGE 1-A



b

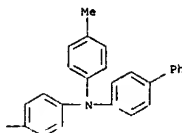
L30 ANSWER 123 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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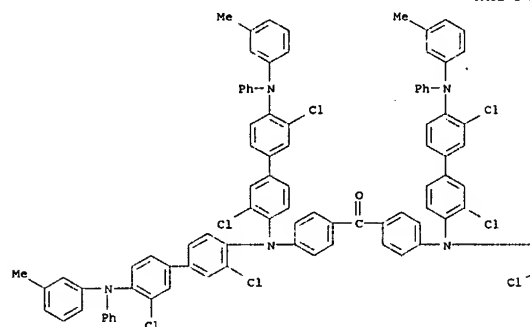
L30 ANSWER 123 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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RN 167218-89-5 CAPLUS
 CN Methanone,
 bis[4-[bis(3,3'-dichloro-4'-[[3-methylphenyl]phenylamino][1,1'-
 biphenyl]-4-yl)amino]phenyl]- (9CI) (CA INDEX NAME)

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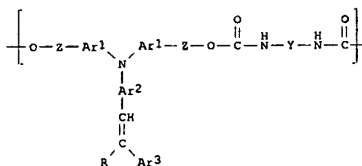
L30 ANSWER 124 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:686839 CAPLUS
 DOCUMENT NUMBER: 123:97831
 TITLE: Electrophotographic photoreceptor
 INVENTOR(S): Hayata, Hirofumi
 PATENT ASSIGNEE(S): Konishiroku Photo Ind, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.
 CODEN: JKXXAF.
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07056374	A2	19950303	JP 1993-198546	19930810
JP 3252241	B2	20020204		

PRIORITY APPLN. INFO.: JP 1993-198546 19930810

GI



AB In the title electrophotog. photoreceptor comprising a photosensitive layer on an elec. conductive substrate, the photosensitive layer contains a polymer I (Ar1,2 = arylene; Ar3 = aryl, heterocyclyl; Y = bifunctional group; R = H, alkyl, alkoxy, aryl, heterocyclyl; R and Ar3 may form a ring with other atoms; Z = alkylene, arylene; weight-average mol. weight = 10,000-1,000,000.) as a charge-transporting material. This photoreceptor shows high sensitivity and good chargeability.

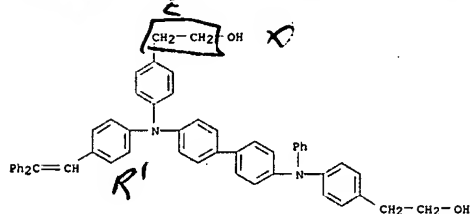
IT RL: DEV (Device component use); USES (Uses)
 (charge-transporting material for electrophotog. photoreceptor)

RN 165122-80-5 CAPLUS
 CN Benzeneethanol, 4-[[4'-[[4-(2,2-diphenylethenyl)phenyl][4-(2-hydroxyethyl)phenyl]amino][1,1'-biphenyl]-4-yl]phenylamino]-, polymer
 with 1,3-diisocyanatobenzene (9CI) (CA INDEX NAME)

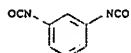
CN 1

CRN 165122-79-2
 CMF C54 H46 N2 O2

L30 ANSWER 124 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



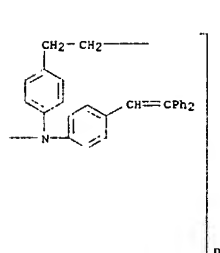
CM 2
CRN 123-61-5
CMF C8 H4 N2 O2



IT 165122-63-4P 165122-64-5P 165122-66-7P
RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(charge-transporting material for electrophotog. photoreceptor)
RN 165122-63-4 CAPLUS
CN Benzeneethanol, 4,4'-[1,1'-biphenyl]-4,4'-diylbis[4-(2,2-diphenylethenyl)phenyl]imino]bis-, polymer with 1,3-diisocyanato-2-methylbenzene (9CI) (CA INDEX NAME)

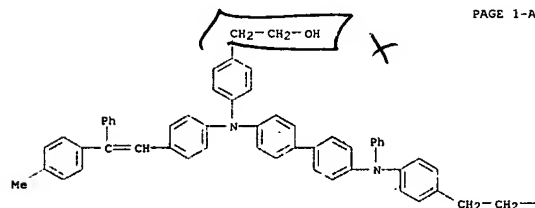
CM 1
CRN 165122-62-3
CMF C68 H56 N2 O2

L30 ANSWER 124 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



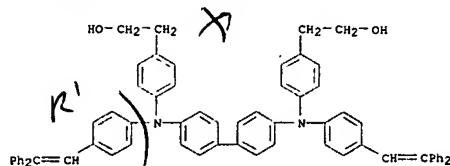
RN 165122-66-7 CAPLUS
CN Benzeneethanol, 4'-[4'-[4-(2-hydroxyethyl)phenyl][4-(2-(4-methylphenyl)-2-phenylethenyl)phenyl]amino][1,1'-biphenyl]-4-yl]phenylamino]-, polymer with 1,3-diisocyanatobenzene (9CI) (CA INDEX NAME)

CM 1
CRN 165122-65-6
CMF C55 H48 N2 O2



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L30 ANSWER 124 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

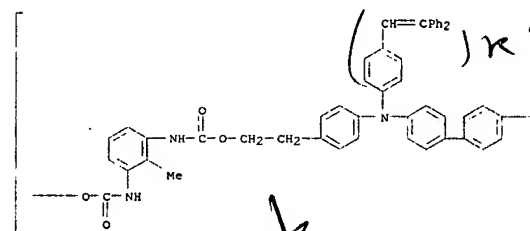


CM 2
CRN 91-08-7
CMF C9 H6 N2 O2



RN 165122-64-5 CAPLUS
CN Poly[oxy carbonylimino(2-methyl-1,3-phenylene)iminocarbonyloxy-1,2-ethanediyl-1,4-phenylene[4-(2,2-diphenylethenyl)phenyl]imino][1,1'-biphenyl]-4,4'-diyl[4-(2,2-diphenylethenyl)phenyl]imino]-1,4-phenylene-1,2-ethanediyl] (9CI) (CA INDEX NAME)

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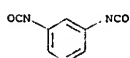


L30 ANSWER 124 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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OH

CM 2
CRN 123-61-5
CMF C8 H4 N2 O2



L30 ANSWER 125 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1995:547589 CAPLUS
 DOCUMENT NUMBER: 123:70290
 TITLE: Electrophotographic photoreceptors using benzidine derivative charge-transporting agent
 INVENTOR(S): Saito, Koichi; Saito, Yoshitaka
 PATENT ASSIGNEE(S): Dainippon Ink & Chemicals, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 34 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07036203	A2	19950207	JP 1993-178062	19930719
PRIORITY APPLN. INFO.:			JP 1993-178062	19930719

OTHER SOURCE(S): MARPAT 123:70290
 GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

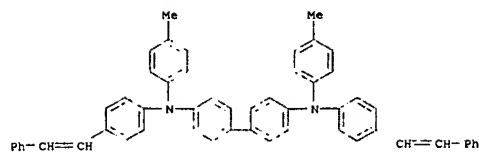
AB The photoreceptors comprise a conductive support coated with a photosensitive layer containing a benzidine derivative I (R5, R6 = H, halo, alkoxy, (substituted) alkyl, aryl, amino; 22 of R1-4 are groups CR7:CR8R9 and others are H; R7-9 = H, (substituted) alkyl or aryl, 21 of R8 and R9 is (substituted) aryl). The photoreceptors show high photosensitivity, low residual potential, and improved environmental stability. Thus, an Al cylinder was coated with a charge-generating

layer containing titanyl phthalocyanine and with a charge-transporting layer containing II to give a photoreceptor.

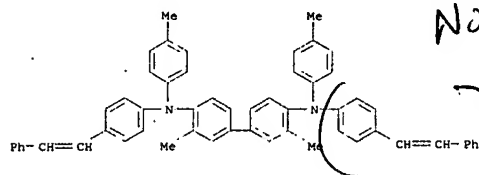
IT 164581-10-6P 164581-11-7P
 RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
 (electrophotog. photoreceptor containing benzidine derivative as charge-transporting agent)

RN 164581-10-6 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(4-methylphenyl)-N,N'-bis[4-(2-phenylethenyl)phenyl]- (9CI) (CA INDEX NAME)

L30 ANSWER 125 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 164581-11-7 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-N,N'-bis(4-methylphenyl)-N,N'-bis[4-(2-phenylethenyl)phenyl]- (9CI) (CA INDEX NAME)



L30 ANSWER 126 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1995:266950 CAPLUS
 DOCUMENT NUMBER: 122:42660
 TITLE: Electrophotographic photoreceptor containing charge transport substance
 INVENTOR(S): Hayata, Hirofumi; Hirose, Hisahiro
 PATENT ASSIGNEE(S): Konishiroku Photo Ind, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 40 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

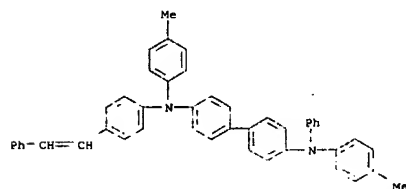
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06011854	A2	19940121	JP 1992-167792	19920625
JP 3177792	B2	20010618	JP 1992-167792	19920625

OTHER SOURCE(S): MARPAT 122:42660

AB The title photoreceptor has a layer containing a compound (charge transport substance) A1A2N-A6-A7-N(A3)-(-A5)-n-CH:CR4R [A1-4 = (sub)aryl; A5-7 = (sub)arylene; R = H, alkyl, (sub)aryl; R and A4 may bond with other atoms to form a ring; n = 1, 2]. The photoreceptor shows high sensitivity and stability for repeated use.

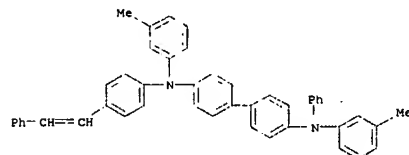
IT 145772-06-1 159918-61-3 159918-62-4
 159918-63-5 159918-64-6 159918-65-7
 159918-66-8 159918-67-9 159918-68-0
 159918-69-1 159918-70-4 159918-71-5
 159918-72-6 159918-73-7 159918-74-8
 159918-75-9 159918-76-0 159918-77-1
 159918-78-2 159918-79-3 159918-80-6
 159918-82-8 159918-84-0 159918-85-1
 159918-86-2 159918-87-3
 RL: DEV (Device component use); USES (Uses)
 (charge transport substance for high-sensitivity electrophotog. photoreceptor)

RN 145772-06-1 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(4-methylphenyl)-N-phenyl-N'-[4-(2-phenylethenyl)phenyl]- (9CI) (CA INDEX NAME)

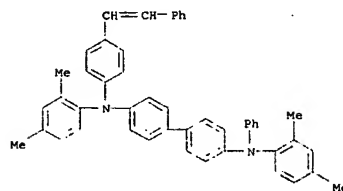


RN 159918-61-3 CAPLUS

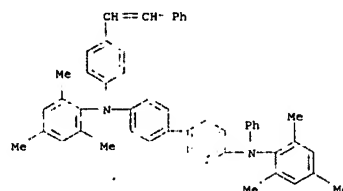
L30 ANSWER 126 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(3-methylphenyl)-N-phenyl-N'-[4-(2-phenylethenyl)phenyl]- (9CI) (CA INDEX NAME)



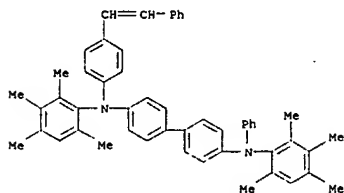
RN 159918-62-4 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(2,4-dimethylphenyl)-N-phenyl-N'-[4-(2-phenylethenyl)phenyl]- (9CI) (CA INDEX NAME)



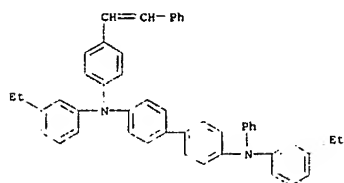
RN 159918-63-5 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N-phenyl-N'-[4-(2-phenylethenyl)phenyl]-N,N'-bis(2,4,6-trimethylphenyl)- (9CI) (CA INDEX NAME)



L30 ANSWER 126 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 RN 159918-64-6 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N-phenyl-N'-bis(2,3,4,6-tetramethylphenyl)- (9CI) (CA INDEX NAME)

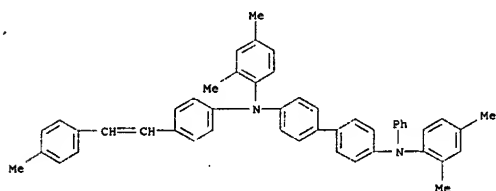


RN 159918-65-7 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(3-ethylphenyl)-N-phenyl-N'-[4-(2-phenylethenyl)phenyl]- (9CI) (CA INDEX NAME)

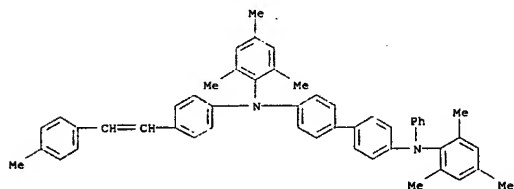


RN 159918-66-8 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[3-(1-methylethyl)phenyl]-N-phenyl-N'-[4-(2-phenylethenyl)phenyl]- (9CI) (CA INDEX NAME)

L30 ANSWER 126 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 RN 159918-69-1 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(2,4-dimethylphenyl)-N-[4-[2-(4-methylphenyl)ethenyl]phenyl]-N'-phenyl- (9CI) (CA INDEX NAME)



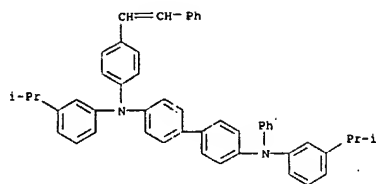
RN 159918-70-4 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N-[4-[2-(4-methylphenyl)ethenyl]phenyl]-N'-phenyl-N,N'-bis(2,4,6-trimethylphenyl)- (9CI) (CA INDEX NAME)



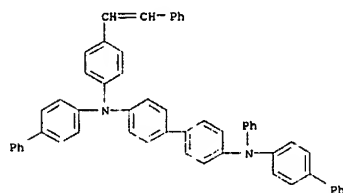
RN 159918-71-5 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N-[4-[2-(4-methylphenyl)ethenyl]phenyl]-N'-phenyl-N,N'-bis(2,3,4-trimethylphenyl)- (9CI) (CA INDEX NAME)



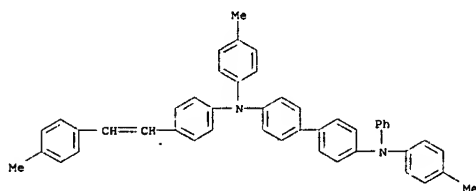
L30 ANSWER 126 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



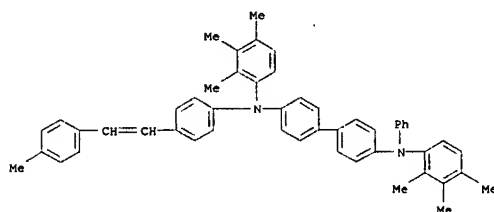
RN 159918-67-9 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis([1,1'-biphenyl]-4-yl)-N-phenyl-N'-[4-(2-phenylethenyl)phenyl]- (9CI) (CA INDEX NAME)



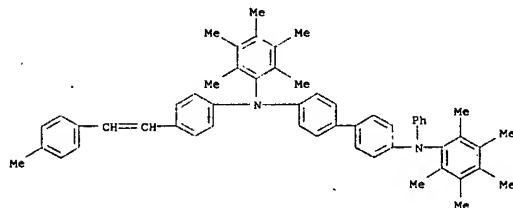
RN 159918-68-0 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(4-methylphenyl)-N-[4-[2-(4-methylphenyl)ethenyl]phenyl]-N'-phenyl- (9CI) (CA INDEX NAME)



L30 ANSWER 126 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



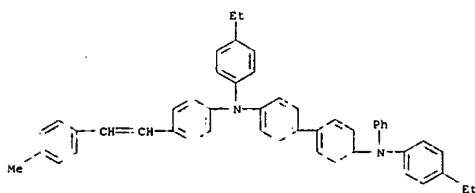
RN 159918-72-6 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N-[4-[2-(4-methylphenyl)ethenyl]phenyl]-N,N'-bis(pentamethylphenyl)-N'-phenyl- (9CI) (CA INDEX NAME)



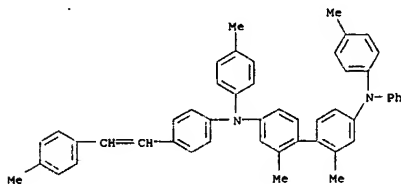
RN 159918-73-7 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(4-ethylphenyl)-N-[4-[2-(4-methylphenyl)ethenyl]phenyl]-N'-phenyl- (9CI) (CA INDEX NAME)



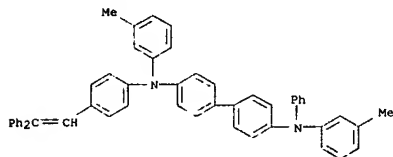
L30 ANSWER 126 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



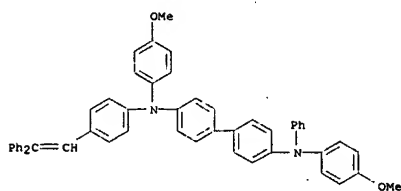
RN 159918-74-9 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine,
 2,2'-dimethyl-N,N'-bis(4-methylphenyl)-N-[4-
 [2-(4-methylphenyl)ethenyl]phenyl]-N'-phenyl- (9CI) (CA INDEX NAME)



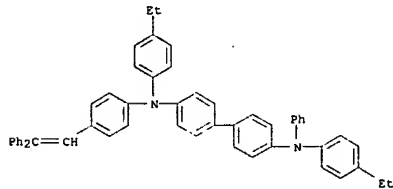
RN 159918-75-9 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine,
 N-[4-(2,2-diphenylethenyl)phenyl]-N,N'-bis(3-
 methylphenyl)-N'-phenyl- (9CI) (CA INDEX NAME)



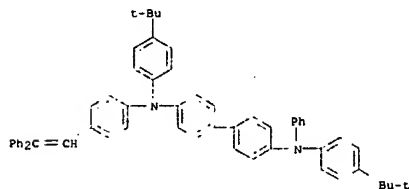
L30 ANSWER 126 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 159918-79-3 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine,
 N-[4-(2,2-diphenylethenyl)phenyl]-N,N'-bis(4-
 ethylphenyl)-N'-phenyl- (9CI) (CA INDEX NAME)



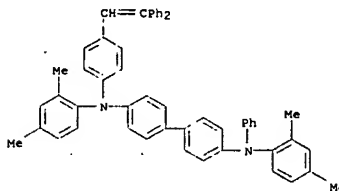
RN 159918-80-6 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-[(1,1-dimethylethyl)phenyl]-N-[4-(2,2-diphenylethenyl)phenyl]-N'-phenyl- (9CI) (CA INDEX NAME)



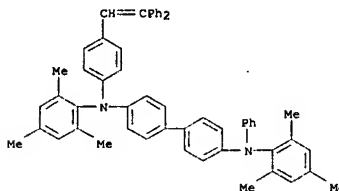
RN 159918-82-8 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[(1,1'-biphenyl)-4-yl]-N-[4-(2,2-

L30 ANSWER 126 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

RN 159918-76-0 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(2,4-dimethylphenyl)-N-[4-(2,2-diphenylethenyl)phenyl]-N'-phenyl- (9CI) (CA INDEX NAME)

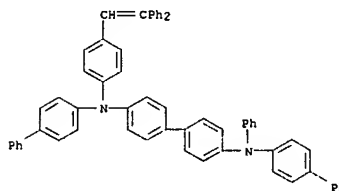


RN 159918-77-1 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine,
 N-[4-(2,2-diphenylethenyl)phenyl]-N'-phenyl-
 N,N'-bis(2,4,6-trimethylphenyl)- (9CI) (CA INDEX NAME)

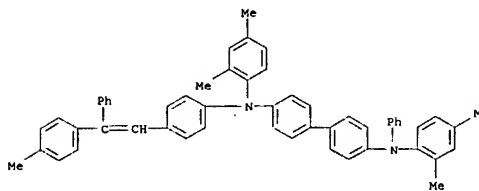


RN 159918-78-2 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine,
 N-[4-(2,2-diphenylethenyl)phenyl]-N,N'-bis(4-
 methoxyphenyl)-N'-phenyl- (9CI) (CA INDEX NAME)

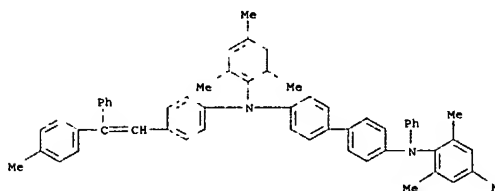
L30 ANSWER 126 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



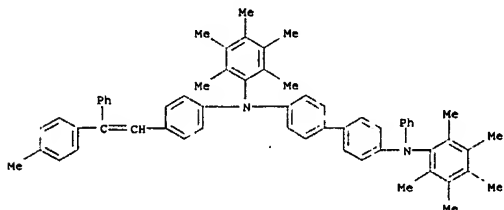
RN 159918-84-0 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(2,4-dimethylphenyl)-N-[4-(2,4-dimethylphenyl)-2-phenylethenyl]phenyl]-N'-phenyl- (9CI) (CA INDEX NAME)



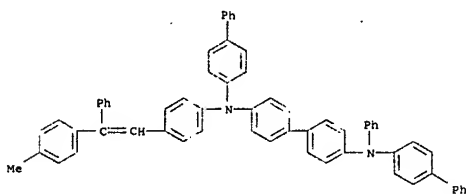
RN 159918-85-1 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N-[4-(2-(4-methylphenyl)-2-phenylethenyl)phenyl]-N'-phenyl-N,N'-bis(2,4,6-trimethylphenyl)- (9CI) (CA INDEX NAME)



L30 ANSWER 126 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 RN 159918-86-2 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N-[4-[2-(4-methylphenyl)-2-phenylethenyl]phenyl]-N,N'-bis(pentamethylphenyl)-N'-phenyl- (9CI) (CA INDEX NAME)



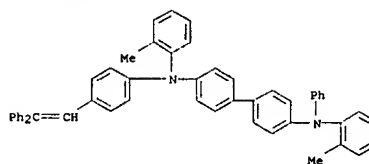
RN 159918-87-3 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis([1,1'-biphenyl]-4-yl)-N-[4-[2-(4-methylphenyl)-2-phenylethenyl]phenyl]-N'-phenyl- (9CI) (CA INDEX NAME)



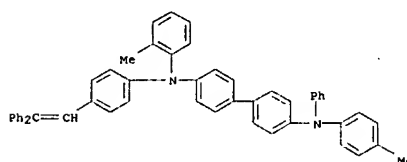
IT 159918-59-9P 159918-60-2P
 RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (preparation of charge transport substance for high-sensitivity electrophotog. photoreceptor)
 RN 159918-59-9 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N-[4-(2,2-diphenylethenyl)phenyl]-N,N'-bis(2-methylphenyl)-N'-phenyl- (9CI) (CA INDEX NAME)

L30 ANSWER 126 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

L30 ANSWER 126 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

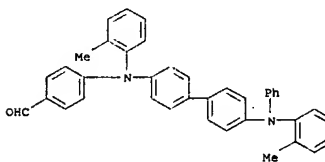


RN 159918-60-2 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N-[4-(2,2-diphenylethenyl)phenyl]-N-(2-methylphenyl)-N'-(4-methylphenyl)-N'-phenyl- (9CI) (CA INDEX NAME)



IT 159918-57-7
 RL: RCT (Reactant): RACT (Reactant or reagent)
 (preparation of charge transport substance for high-sensitivity electrophotog. photoreceptor)

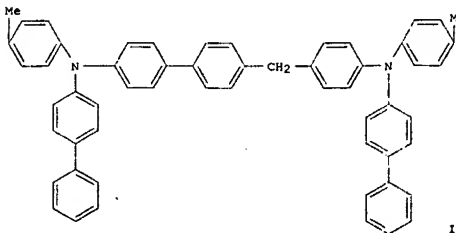
RN 159918-57-7 CAPLUS
 CN Benzaldehyde, 4-[(2-methylphenyl)[4'-[(2-methylphenyl)phenylamino][1,1'-biphenyl]-4-yl]amino)- (9CI) (CA INDEX NAME)



L30 ANSWER 127 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1994:591307 CAPLUS
 DOCUMENT NUMBER: 121:191307
 TITLE: Electrophotographic photoreceptors with improved photosensitivity and durability
 Ueda, Hideaki
 INVENTOR(S): Minolta Camera Kk, Japan
 PATENT ASSIGNEE(S): Jpn. Kokai Tokkyo Koho, 8 pp.
 SOURCE: CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06118668	A2	19940428	JP 1992-268552	19921007
US 5376487	A	19941227	US 1993-131395	19931005
PRIORITY APPLN. INFO.:				JP 1992-268552 A 19921007

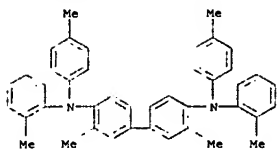
GI



AB The photoreceptors contain an arylamine and an electron acceptor with electron affinity 0.85-1.0 eV on a conductive support. The photoreceptors show high photosensitivity and durability in repeated use. Thus, an Al drum was coated with a charge-generating layer containing a trisazo pigment and with a charge-transport layer containing arylamine I and m-C6H4[CH:C(CN)2]2 to give a photoreceptor.

IT 128379-70-4
 RL: USES (Uses)
 (electrophotog. photoreceptors containing charge-transfer system including)
 RN 128379-70-4 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-N,N'-bis(2-methylphenyl)-N,N'-bis(4-methylphenyl)- (9CI) (CA INDEX NAME)

L30 ANSWER 127 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



X

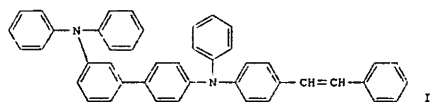
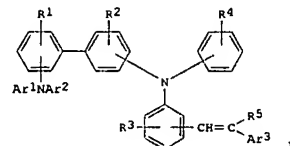
L30 ANSWER 128 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1994:591286 CAPLUS
 DOCUMENT NUMBER: 121:191286
 TITLE: Electrophotographic photoreceptors using novel biphenyldiamine derivative carrier-transporting agent
 INVENTOR(S): Hayata, Hirofumi; Hirose, Hisahiro
 PATENT ASSIGNEE(S): Konishiroku Photo Ind. Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06110228	A2	19940422	JP 1992-261987	19920930
JP 3148955	B2	20010326		

PRIORITY APPL. INFO.: JP 1992-261987 19920930

OTHER SOURCE(S): MARPAT 121:191286
 GI



AB The photoreceptors comprise a photosensitive layer containing a biphenyldiamine derivative I [R1-4 = H, halo, alkyl, aryl, alkylamino; R5 = H, alkyl, aryl, heterocycle; Ar1, Ar2, Ar3 = aryl, heterocycle, (all the above groups may be substituted), R5 and Ar3 may form a ring each other or with bonds via other atoms; the N atom of the substituted amino groups and the C atom of the 2-position substituted vinyl group do not occupy the p, p', and p" positions at the same time]. The photoreceptors show high

L30 ANSWER 128 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 photosensitivity, low residual potential, and good durability in repeated use. Thus, an Al vapor-deposited polyester film with an interlayer was coated with a carrier-generating layer contg. dibromoanthanthrone and

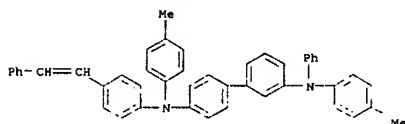
with a carrier-transporting layer contg. II to give a photoreceptor.

IT 157688-56-7 157688-57-8 157688-59-0
 157688-64-7 157688-65-8 157688-66-9
 157688-67-0 157688-70-5 157688-71-6
 157688-72-7

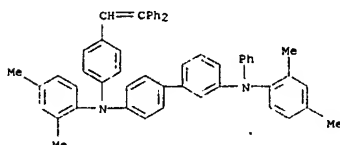
RL: USES (Uses)

(charge-transporting agent, electrophotog. photoreceptor using)

RN 157688-56-7 CAPLUS
 CN [1,1'-Biphenyl]-3,4'-diamine, N3,N4'-bis(4-methylphenyl)-N4'-[4-(2-phenylethenyl)phenyl]- (9CI) (CA INDEX NAME)

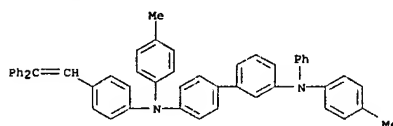


RN 157688-57-8 CAPLUS
 CN [1,1'-Biphenyl]-3,4'-diamine, N3,N4'-bis(2,4-dimethylphenyl)-N4'-[4-(2,2-diphenylethenyl)phenyl]-N3-phenyl- (9CI) (CA INDEX NAME)

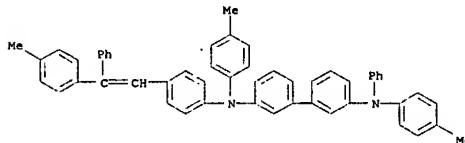


RN 157688-59-0 CAPLUS
 CN [1,1'-Biphenyl]-3,4'-diamine, N4'-[4-(2,2-diphenylethenyl)phenyl]-N3,N4'-bis(4-methylphenyl)-N3-phenyl- (9CI) (CA INDEX NAME)

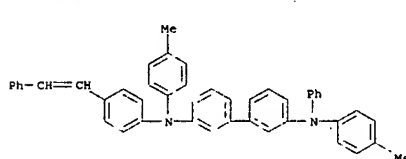
L30 ANSWER 128 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 157688-64-7 CAPLUS
 CN [1,1'-Biphenyl]-3,3'-diamine, N,N'-bis(4-methylphenyl)-N-[4-(2-methylphenyl)-2-phenylethenyl]phenyl]-N'-phenyl- (9CI) (CA INDEX NAME)



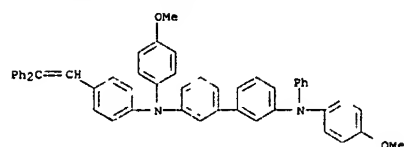
RN 157688-65-8 CAPLUS
 CN [1,1'-Biphenyl]-3,3'-diamine, N,N'-bis(4-methylphenyl)-N-phenyl-N'-[4-(2-phenylethenyl)phenyl]- (9CI) (CA INDEX NAME)



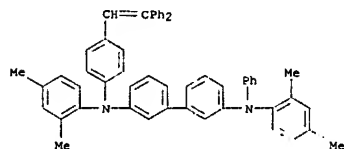
RN 157688-66-9 CAPLUS
 CN [1,1'-Biphenyl]-3,3'-diamine, N,N'-bis(4-methoxyphenyl)-N'-phenyl- (9CI) (CA INDEX NAME)

X

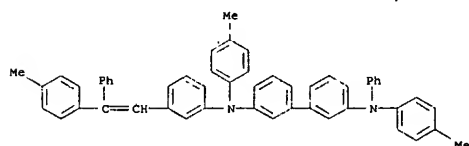
L30 ANSWER 128 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 157688-67-0 CAPLUS
 CN [1,1'-Biphenyl]-3,3'-diamine, N,N'-bis(2,4-dimethylphenyl)-N-[4-(2,2-diphenylethenyl)phenyl]-N'-phenyl- (9CI) (CA INDEX NAME)



RN 157688-70-5 CAPLUS
 CN [1,1'-Biphenyl]-3,3'-diamine, N,N'-bis(4-methylphenyl)-N-[3-[2-(4-methylphenyl)-2-phenylethenyl]phenyl]-N'-phenyl- (9CI) (CA INDEX NAME)

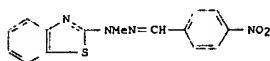


RN 157688-71-6 CAPLUS
 CN [1,1'-Biphenyl]-3,3'-diamine, N,N'-bis(4-methylphenyl)-N-phenyl-N'-[3-(2-phenylethenyl)phenyl]- (9CI) (CA INDEX NAME)

L30 ANSWER 129 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1994:204627 CAPLUS
 DOCUMENT NUMBER: 120:204627
 TITLE: Electrophotographic photoreceptors used in back side exposure process
 INVENTOR(S): Hiroo, Akiko; Suguchi, Masami
 PATENT ASSIGNEE(S): Tokyo Shibaura Electric Co, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05281761	A2	19931029	JP 1992-77177	19920331
PRIORITY APPLN. INFO.:				
			JP 1992-77177	19920331

GI



AB The photoreceptors are prepared by forming a transparent conductive layer, a charge-generating layer, and a charge-transporting layer having maximum absorption wavelength of visible light at 450-800 nm successively on a transparent support. The photoreceptors used in back side exposure process show good durability in repeated use. Thus, a polyester film was coated with In-Sn oxide and the made into a cylinder, and the cylindrical support was coated successively with an undercoat layer, a charge-generating layer containing π -type metal-free phthalocyanine,

and a charge-transporting layer containing I to give a photoreceptor.

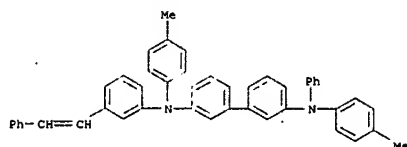
IT 153734-23-7

RL: TEM (Technical or engineered material use); USES (Uses)
 (electrophotog. photoreceptor charge-transporting agent)

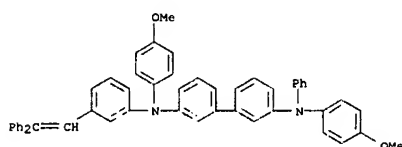
RN 153734-23-7 CAPLUS

CN [1,1'-Biphenyl]-4,4'-diamine, N-[3-[4-bis(4-(diphenylamino)phenyl)-1,3-butadienyl]phenyl]-N,N'-bis(4-methylphenyl)-N'-phenyl- (9CI) (CA INDEX NAME)

L30 ANSWER 128 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

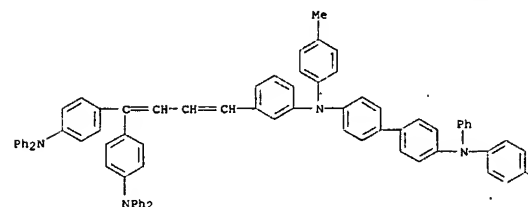


RN 157688-72-7 CAPLUS
 CN [1,1'-Biphenyl]-3,3'-diamine, N-[3-(2,2-diphenylethenyl)phenyl]-N,N'-bis(4-methoxyphenyl)-N'-phenyl- (9CI) (CA INDEX NAME)



L30 ANSWER 129 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

PAGE 1-A



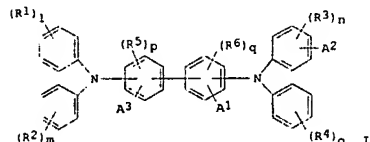
PAGE 1-B

L30 ANSWER 130 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1993:459651 CAPLUS
 DOCUMENT NUMBER: 119:59651
 TITLE: Benzidine derivative for electrophotographic photoreceptor
 INVENTOR(S): Manatani, Yasuyuki; Iwasaki, Hiroaki
 PATENT ASSIGNEE(S): Mita Industrial Co., Ltd., Japan
 SOURCE: Eur. Pat. Appl., 26 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 506492	A2	19920930	EP 1992-302801	19920330
EP 506492	A3	19930303		
EP 506492	B1	19970205		
R: DE, FR, GB, IT, NL				
JP 04300854	A2	19921023	JP 1991-66767	19910329
JP 2518974	B2	19960731		
US 5272031	A	19931221	US 1992-056681	19920324

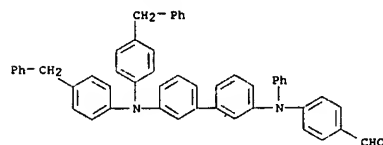
PRIORITY APPLN. INFO.: JP 1991-66767 A 19910329

OTHER SOURCE(S): MARPAT 119:59651
 GI

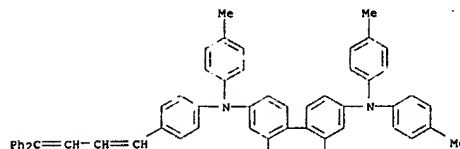


AB A benzidine derivative represented by the formula I (R1-6 = H, halogen, alkyl, alkoxy, aryl, aralkyl, or heterocyclyl; 1, m, n, o, p, q = 0, 1 or 2;
 A1-3 = H or (CH=CH)rCH=CHr8 where R7, R8 = H, alkyl, alkoxy, aryl, aralkyl, or heterocyclyl, provided that R7 and R8 are not both H; r = 0 or 1 and provided that A1, A2, and A3 are not H simultaneously and that ≥1 of A1 and A3 is H) is used as a charge-transporting agent for an electrophotog. photoreceptor.
 IT 147845-71-4 147845-72-5
 RL: USES (Uses)
 (charge-transporting agent, for electrophotog. photoreceptors)
 RN 147845-71-4 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N-[4-(4,4-diphenyl-1,3-butadienyl)phenyl]-

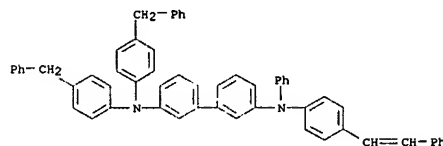
L30 ANSWER 130 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



L30 ANSWER 130 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 2,2'-dimethyl-N,N',N'-tris(4-methylphenyl)- (9CI) (CA INDEX NAME)



RN 147845-72-5 CAPLUS
 CN [1,1'-Biphenyl]-3,3'-diamine, N-phenyl-N-[4-(2-phenylethenyl)phenyl]-N',N'-bis[4-(phenylmethyl)phenyl]- (9CI) (CA INDEX NAME)



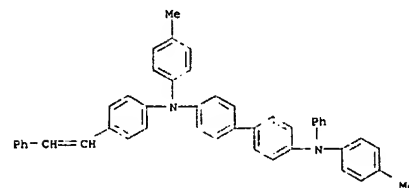
IT 147845-81-6
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, in preparing benzidine derivs. as charge-transporting agent for electrophotog. photoreceptors)
 RN 147845-81-6 CAPLUS
 CN Benzaldehyde, 4-[[3'-[bis[4-(phenylmethyl)phenyl]amino][1,1'-biphenyl]-3-yl]phenylamino]- (9CI) (CA INDEX NAME)

L30 ANSWER 131 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1993:90870 CAPLUS
 DOCUMENT NUMBER: 118:90870
 TITLE: Preparation of styryl compounds as charge-transporting agents for photoconductors and electroluminescent devices
 INVENTOR(S): Ueda, Hideaki
 PATENT ASSIGNEE(S): Minolta Camera Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04290851	A2	19921015	JP 1991-52377	19910318
JP 2927017	B2	19990728		

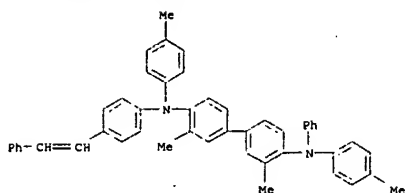
PRIORITY APPLN. INFO.: JP 1991-52377 19910318

AB AIRINAZA3NR2A4CH:CA5R3 [R1-2 = (un)substituted alkyl, aralkyl, aryl, heterocyclyl; R3 = H, (un)substituted alkyl, aralkyl, aryl, heterocyclyl, A1 = (un)substituted aryl; A2-4 = (un)substituted arylene; A5 = (un)substituted aryl, heterocyclyl] are claimed. Electrophotog. photoconductors using (I) as charge-transporting agents are excellent in sensitivity, initial surface potential, dark decay, and durability in repeated use.
 IT 145772-06-1 145772-07-2 145772-12-9
 145772-14-1 145772-15-2 145772-22-1
 RL: TEM (Technical or engineered material use); USES (Uses)
 (electrophotog. photoreceptor charge-transporting agent)
 RN 145772-06-1 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(4-methylphenyl)-N-phenyl-N'-[4-(2-phenylethenyl)phenyl]- (9CI) (CA INDEX NAME)

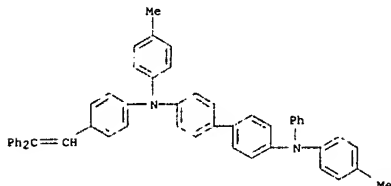


RN 145772-07-2 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-N,N'-bis(4-methylphenyl)-N-phenyl-N'-[4-(2-phenylethenyl)phenyl]- (9CI) (CA INDEX NAME)

L30 ANSWER 131 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

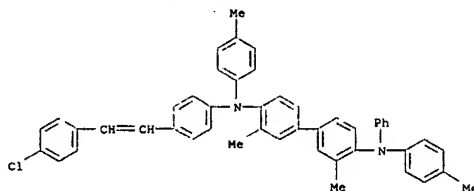


RN 145772-12-9 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine,
 N-[4-(2-(4-methylphenyl)ethenyl)phenyl]-N,N'-bis(4-methylphenyl)-N'-phenyl- (9CI) (CA INDEX NAME)

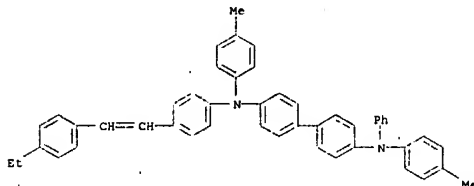


RN 145772-14-1 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine,
 N-[4-(2-(4-chlorophenyl)ethenyl)phenyl]-3,3'-dimethyl-N,N'-bis(4-methylphenyl)-N'-phenyl- (9CI) (CA INDEX NAME)

L30 ANSWER 131 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 145772-15-2 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine,
 N-[4-(2-(4-ethylphenyl)ethenyl)phenyl]-N,N'-bis(4-methylphenyl)-N'-phenyl- (9CI) (CA INDEX NAME)

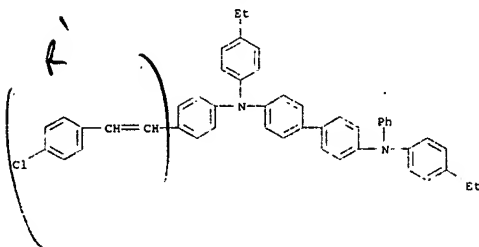


RN 145772-22-1 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine,
 N-[4-(2-(4-chlorophenyl)ethenyl)phenyl]-N,N'-bis(4-ethylphenyl)-N'-phenyl- (9CI) (CA INDEX NAME)

No E

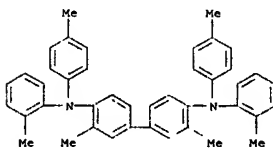
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L30 ANSWER 131 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



L30 ANSWER 132 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1991:643743 CAPLUS
 DOCUMENT NUMBER: 115:243743
 TITLE: Substituent effects on drift mobility of benzidine series hole transport materials
 AUTHOR(S): Nukada, Katsumi; Sato, Katsuhiko; Akasaki, Yutaka
 CORPORATE SOURCE: Mater. Res. Lab., Fuji Xerox Co., Ltd., Minamishigara, 250-01, Japan
 SOURCE: Denshi Shashin Gakkaishi (1991), 30(1), 16-21
 CODEN: DSHGDD; ISSN: 0387-916X
 DOCUMENT TYPE: Journal
 LANGUAGE: Japanese
 AB Tetraaryl benzidine derivs. were investigated for substituent effects to obtain a mol. design guide to enhance drift mobility of the hole transport materials for organic photoconductors. When an alkyl group was introduced into the N-substituted Ph moiety, substitution at ortho or meta position had little effect on drift mobility, while substitution at para position doubled the drift mobility. These effects may be interpreted in terms of delocalization of electron d. by $\sigma-\pi$ conjugation and inhibition of the delocalization by steric hindrance. On the other hand, introduction of an alkyl group at the 3-position of the biphenyl ortho to the N atom, raised the drift mobility by a factor of 2; this is contrary to the results already mentioned. The alkyl substituent effect on drift mobility was linearly related to the product of substituent const., which are the increasing ratio of the drift mobility of the resp. substitution position empirically obtained.
 IT 128379-70-4
 RL: USES (Uses)
 (organic photoconductor of, substituent effect on drift mobility of, for electrophotog.)
 RN 128379-70-4 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine,
 3,3'-dimethyl-N,N'-bis(2-methylphenyl)-N,N'-bis(4-methylphenyl)- (9CI) (CA INDEX NAME)



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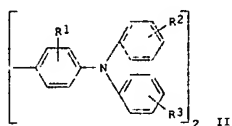
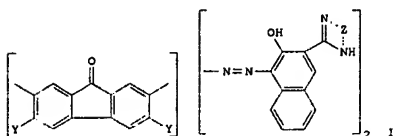
L30 ANSWER 133 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1990:468367 CAPLUS
 DOCUMENT NUMBER: 113:68367
 TITLE: Electrophotographic photoconductors
 INVENTOR(S): Yashiki, Yuichi
 PATENT ASSIGNEE(S): Fuji Xerox Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
 CODEN: JKKXAF

DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02053068	A2	19900222	JP 1988-203236	19880817

PRIORITY APPLN. INFO.: JP 1988-203236 19880817

OTHER SOURCE(S): MARPAT 113:68367
 GI

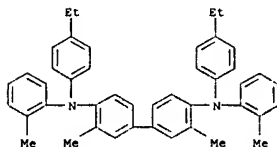


AB Photosensitive layer(s) of title photoconductors contain 0-4-times substituted anthranthrones (substituents = halo, NO₂, CN, acyl, CO₂H) and bisazo dyes I (Y = H, halo, NO₂; Z = aromatic hydrocarbylene, N-containing heterocyclylene). Invention includes photoconductors with charge carrier-generating layer (CGL) containing the anthrones and I, and charge-transporting layer (CTL) containing benzidines II (R₁ = H, alkyl, alkoxy, halo, alkoxy-carbonyl, (substituted) amino). High sensitivity in wide wavelength range is obtained, especially suitable for exposure with halogen lamp. Thus, an Al cylinder with a Nylon 4 barrier layer was coated with a

L30 ANSWER 133 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 dispersion contg. 4 parts dibromoanthanthrone, 1 part I (Y = H, Z = o-phenylene) and 1 part poly(vinyl butyral) binder to form a 0.55-μm-thick CGL, and then with a CTL contg. II (R₁-2 = H, R₃ = 3-methylphenyl) and polycarbonate, to obtain photoconductors. Photoconductors showed well-balanced high sensitivities to white, red,

and blue originals in electrophotog., that did not change after 1000 charging-photodischarging cycles.
 IT 128379-12-4
 RL: USES (Uses)
 (electrophotog. charge-transporting agent, photoconductors containing mixed charge generator dyes and)

RN 128379-12-4 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(4-ethylphenyl)-3,3'-dimethyl-N,N'-bis(2-methylphenyl)- (9CI) (CA INDEX NAME)



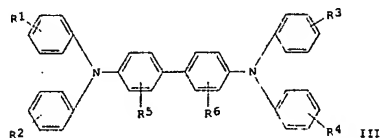
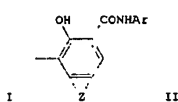
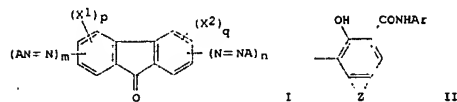
L30 ANSWER 134 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1990:468312 CAPLUS
 DOCUMENT NUMBER: 113:68312
 TITLE: Electrophotographic photoreceptor
 INVENTOR(S): Goto, Satoshi; Takagi, Takahiro; Shibata, Toyoko; Suzuki, Shinichi; Sasaki, Osamu
 PATENT ASSIGNEE(S): Konica Co., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 31 pp.
 CODEN: JKKXAF

DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01280765	A2	19891110	JP 1988-110946	19880506

PRIORITY APPLN. INFO.: JP 1988-110946 19880506

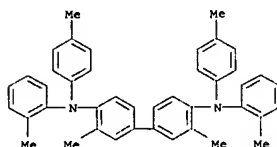
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AB In the title photoreceptor with a photoconductive layer containing a carrier-generating material and a carrier-transporting material, the carrier-generating material is a bisazo derivative [I; X₁, X₂ = halogen, alkyl, alkoxy, NO₂, CN, OH, NH₂; ≥1 of X₁ and X₂ = halogen; p, q = 0-2; p + q = 0; A = II (Ar = an aromatic hydrocarbon ring with a fluorohydrocarbon group, an aromatic heterocyclic ring with a fluorohydrocarbon group; Z = the atoms necessary to form an aromatic hydrocarbon ring or aromatic heterocyclic ring); m, n = 0-2; m + n = 0], and the carrier-transporting material is the biphenyldiamine III [R₁-R₄ = H, alkyl, alkoxy, halogen, alkoxy-carbonyl, NH₂; R₅-R₆ = H, alkyl, alkoxy, halogen].

IT 128379-70-4
 RL: USES (Uses)
 (charge-transporting material, electrophotog. photoreceptor containing)
 RN 128379-70-4 CAPLUS

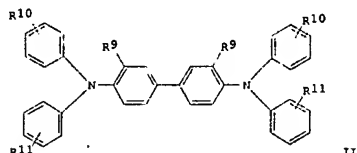
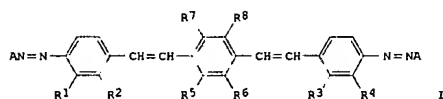
L30 ANSWER 134 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-N,N'-bis(2-methylphenyl)-N,N'-bis(4-methylphenyl)- (9CI) (CA INDEX NAME)



L30 ANSWER 135 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1990:431933 CAPLUS
 DOCUMENT NUMBER: 113:31933
 TITLE: Electrophotographic photoreceptor
 INVENTOR(S): Akasaki, Yutaka; Sato, Katsuhiro; Tanaka, Hiroyuki;
 Nukada, Katsumi; Taho, Fumiaki
 PATENT ASSIGNEE(S): Fuji Xerox Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01287573	A2	19891120	JP 1988-116855	19880516
PRIORITY APPLN. INFO.:			JP 1988-116855	19880516

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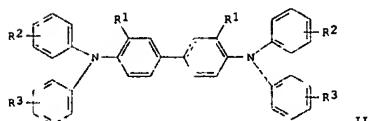
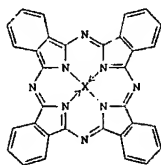


AB In the title photoreceptor, the charge-generating layer contains a bisazo pigment (I) [R1-R4 = H, halogen, alkyl, alkoxy, cyano; R5-R8 = H, halogen, alkyl, alkoxy, cyano, methylthio; A = aromatic coupler moiety], and the charge-transporting layer contains a benzidine derivative (II) [R9 = H, alkyl, alkoxy; R10, R11 = H, alkyl, alkoxy, halogen, alkoxycarbonyl, substituted amino, when R9 = H; R10, R11 = H, Me, alkoxy, halogen, alkoxycarbonyl, substituted amino, when R9 = alkyl, or alkoxy].
 IT 126202-47-9
 RL: USES (Uses)
 (charge-transporting layer containing, for electrophotog. photoreceptor)

L30 ANSWER 136 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1990:207913 CAPLUS
 DOCUMENT NUMBER: 112:207913
 TITLE: Laminated electrophotographic photoconductor using phthalocyanine pigments and benzidines
 INVENTOR(S): Akasaki, Yutaka; Sato, Katsuhiro; Tanaka, Hiroyuki;
 Nukada, Katsumi; Taho, Fumiaki
 PATENT ASSIGNEE(S): Fuji Xerox Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

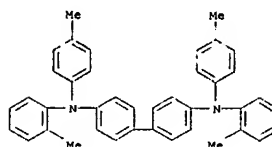
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01257967	A2	19891016	JP 1988-85218	19880408
PRIORITY APPLN. INFO.:			JP 1988-85218	19880408

OTHER SOURCE(S): MARPAT 112:207913
 GI

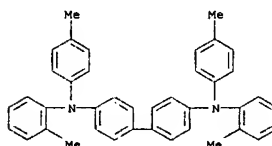


AB The title laminated photoconductor, on an elec. conductive substrate, comprises a charge-generating layer containing a phthalocyanine pigment I (X = 2H, 22-valent metal optionally linked to O or halo) and a charge-transporting layer containing a benzidine II (R1 = H and R2-3 = H, alkyl, alkoxy, halo, alkoxycarbonyl, substituted amino; R1 = alkyl, alkoxy and R2-3 = H, Me, alkoxy, alkoxycarbonyl, substituted amino). Thus, an
 Al sheet was coated with a charge-generating layer containing I (X = 2H) and

L30 ANSWER 135 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 RN 126202-47-9 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(2-methylphenyl)-N,N'-bis(4-methylphenyl)- (9CI) (CA INDEX NAME)



L30 ANSWER 136 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 overcoated with a charge-transporting layer contg. II (R1, R3 = H, R2 = 3-Me) to give the title photoconductor sheet showing elec. charging property, rapid elec. voltage decay under irradi., and no residual elec. voltage.
 IT 126202-47-9
 RL: USES (Uses)
 (charge-transporting agent, for electrophotog. photoconductor with charge-generating agent from phthalocyanine pigment)
 RN 126202-47-9 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(2-methylphenyl)-N,N'-bis(4-methylphenyl)- (9CI) (CA INDEX NAME)



L30 ANSWER 137 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1990:169099 CAPLUS
 DOCUMENT NUMBER: 112:169099
 TITLE: Laminated electrophotographic photoconductor using bisazo pigments and benzidines
 INVENTOR(S): Akasaki, Yutaka; Sato, Katsuhiko; Tanaka, Hiroyuki; Taho, Fumiaki; Nukada, Katsumi
 PATENT ASSIGNEE(S): Fuji Xerox Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp. CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01257951	A2	19891016	JP 1988-85204	19880408
PRIORITY APPLN. INFO.:			JP 1988-85204	19880408

GI

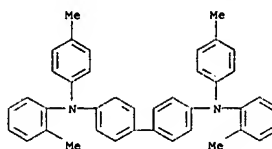
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title laminated photoconductor, on an elec. conductive substrate, comprises a charge-generating layer containing bisazo pigment I or II (R1-2 = H, halo, alkyl; R3 = H, alkoxy; X, Y = H, CN; A = aromatic coupler residue) and a charge-transporting layer containing benzidine III (R4 = H and R5-6 = H, alkyl, alkoxy, halo, alkoxycarbonyl, substituted amino; R4 = alkyl or alkoxy and R5-6 = H, Me, alkoxy, halo, alkoxycarbonyl, substituted amino). Thus, an Al sheet was coated with a charge-generating layer containing I (R1-3 = H, A = naphthalenyl group Q) and overcoated with a charge-transporting layer containing III (R4, R6 = H, R5 = 3-Me) to give the title photoconductor sheet showing elec. charging property, rapid elec. voltage decay under irradiation, and no residual elec. voltage.

IT 126202-47-9
 RL: USES (Uses)
 (charge-transporting agent, for electrophotog. photoconductor with charge-generating agent from bisazo pigment)

RN 126202-47-9 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N',N'-bis(2-methylphenyl)-N,N'-bis(4-methylphenyl)- (9CI) (CA INDEX NAME)

L30 ANSWER 137 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



L30 ANSWER 138 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1989:104964 CAPLUS
 DOCUMENT NUMBER: 110:104964
 TITLE: Organic photoconductive material for electrophotography
 INVENTOR(S): Sasaki, Nobuhiko; Fujio, Katsunori
 PATENT ASSIGNEE(S): Alps Electric Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp. CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63216056	A2	19880908	JP 1987-50940	19870305
PRIORITY APPLN. INFO.:			JP 1987-50940	19870305

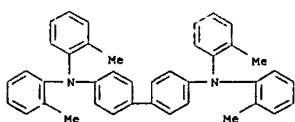
OTHER SOURCE(S): MARPAT 110:104964
 GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title material comprises a charge-generating organic compound containing oxazine ring and/or thiazine ring and a charge-transporting compound I (R1 = alkyl, phenylalkyl, styryl, p-dimethylaminostyryl, Ph-substituted Ph, 2-furfuryl, 2-pyridyl, 3-carbazolyl; X, Y = H, halo), II (R2 = H, alkyl, substituted Ph; R3 = Ph, substituted Ph; R4 = aminophenyl, alkyl-substituted Ph), R5N R6(p-C6H4)2NR7R8 (R5 = R7; R6 = R8; R5-8 = H, Ph, substituted Ph, alkyl), or III (R9 = H, alkyl, halo, NO2; R10 = H, NH2, alkyl, alkylamino, alkoxy, NO2, CN). A photoreceptor containing IV and p-diethylaminobenzaldehydehydrazone showed high photosensitivity.

IT 118841-89-7
 RL: USES (Uses)
 (electrophotog. photoreceptor charge-transporting layer containing)

RN 118841-89-7 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N,N',N'-tetrakis(2-methylphenyl)- (9CI) (CA INDEX NAME)



L30 ANSWER 139 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1989:85416 CAPLUS
 DOCUMENT NUMBER: 110:85416
 TITLE: Organic photoconductive materials for electrophotography
 INVENTOR(S): Sasaki, Nobuhiko
 PATENT ASSIGNEE(S): Alps Electric Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp. CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63155053	A2	19880628	JP 1986-302244	19861218
PRIORITY APPLN. INFO.:			JP 1986-302244	19861218

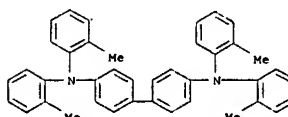
OTHER SOURCE(S): MARPAT 110:85416
 GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The charge carrier-generating layer (CGL) of the electrophotog. photoconductor contains x-nonmetal phthalocyanine, and the charge carrier-transporting layer (CTL) contains 21 of hydrazones 1, oxazole derivs. II, and triarylamines III (X, Y = H, halo; R = alkyl, dialkylamino; Z = H, halo; R1-2 = alkyl, dialkylamino; R3-5 = H, alkyl, dialkylamino, halo). These materials provide good chargeability and photosensitivity, with small residual voltage. Thus, a photoconductor was prepared by coating an Al plate with a 0.5-μ CGL containing a 1:1 mixture of x-phthalocyanine and polycarbonate, and with a 18-μ CTL containing a 1:1 mixture of I (X, Y = H; R = NMe2), and showed chargeability -580 V, sensitivity (irradiation required for half-decay of voltage) 1.25 lx-s, and residual voltage 0% of charged voltage.

IT 118841-89-7
 RL: USES (Uses)
 (electrophotog. photoconductors containing phthalocyanine and)

RN 118841-89-7 CAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N,N,N',N'-tetrakis(2-methylphenyl)- (9CI) (CA INDEX NAME)



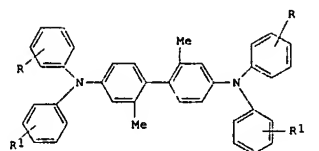
L30 ANSWER 139 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

L30 ANSWER 140 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1982:77536 CAPLUS
 DOCUMENT NUMBER: 96:77536
 TITLE: Aromatic amino charge transport layer in electrophotography
 INVENTOR(S): Stolka, Milan; Yanus, John F.; Pal, Damodar M.; Renfer, Dale S.; Pearson, James M.
 PATENT ASSIGNEE(S): Xerox Corp., USA
 SOURCE: U.S., 14 pp. Cont. of U.S. Ser. No. 969,900, abandoned.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4299897	A	19811110	US 1980-121768	19800215
PRIORITY APPLN. INFO.:			US 1976-716404	A2 19760823
			US 1977-801116	A1 19770527
			US 1978-969900	A1 19781215

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AB Electrophotog. imaging member capable of remaining flexible while still retaining its elec. properties after extensive cycling and exposure to O₂, UV, elevated temperature, and which has no bulk trapping of charge upon extensive cycling comprises a layer of a photoconductive material and a charge-transport layer of a polycarbonate resin containing 10-75 weight%

of I
 (R,R1 = H, o-, m-, p-Me). Thus, aluminized Mylar support was coated with 1μ layer of viscous Se by vacuum deposition, overcoated with a mixture containing CH₃Cl 135,
 N,N'-diphenyl-N,N'-bis(3-methylphenyl)-[2,2'-dimethyl-1,1'-biphenyl]-4,4'-diamine 3.34, Lexon 145 g to give 22 μ dry layer (after 18 h drying at 40°), heated to approx. 125° (to convert Se to crystalline trigonal form) for 16 h to give a plate which after

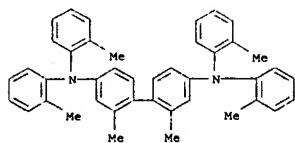
L30 ANSWER 140 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 being charged to a field of 60 V/μ and discharged at λ = 4200 Å at 2 + 1012 photon/cm²s exhibited satisfactory discharge and was capable of forming visible images.

IT 80730-95-6 80730-96-7 80730-97-8
 RL: USES (Uses)

(electrophotog. charged-transport layer containing polycarbonate resin and)

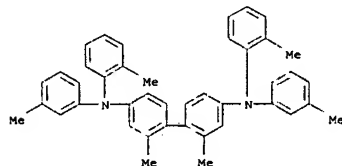
RN 80730-95-6 CAPLUS

CN [1,1'-Biphenyl]-4,4'-diamine, 2,2'-dimethyl-N,N',N'-tetrakis(2-methylphenyl)- (9CI) (CA INDEX NAME)



RN 80730-96-7 CAPLUS

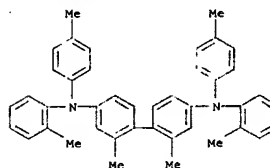
CN [1,1'-Biphenyl]-4,4'-diamine, 2,2'-dimethyl-N,N'-bis(2-methylphenyl)-N,N'-bis(3-methylphenyl)- (9CI) (CA INDEX NAME)



RN 80730-97-8 CAPLUS

CN [1,1'-Biphenyl]-4,4'-diamine, 2,2'-dimethyl-N,N'-bis(2-methylphenyl)-N,N'-bis(4-methylphenyl)- (9CI) (CA INDEX NAME)

L30 ANSWER 140 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



L30 ANSWER 141 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1569:87303 CAPLUS
 DOCUMENT NUMBER: 70:87303
 TITLE: Triarylamine substituted in the ortho position
 INVENTOR(S): Frye, Cecil L.
 PATENT ASSIGNEE(S): Dow Corning Corp.
 SOURCE: Fr., 5 pp.
 CODEN: FRXXAK
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 1511256		19680126	FR 1967-94590	19670210
GB 1171110			GB	
US 3461165		19690812	US	19660211

PRIORITY APPLN. INFO.: US 19660211

AB The title compds. were prepared by heating primary aryl amines or tetraarylamines with aryl bromides or iodides in an appropriate solvent in the presence of spongy Cu and K₂CO₃. All of the aryl groups had o-hydroxy or o-alkoxy substituents. Thus, 64 g. o-anisidine, 234 g. o-iodoanisole, 300 g. K₂CO₃, 64 g. powdered spongy Cu, and 200 g. PhNO₂

was refluxed under N 3 hrs. while the H₂O was eliminated in a trap, and the products were distilled to give 115 g. tris(o-methoxyphenyl)amine (I), m. 145-7° (Me₂CO). 1 (51 g.), 1500 ml. PhMe, and 109 g. AlCl₃ was refluxed under N 90 min. to give 66 g. tris(o-hydroxyphenyl)amine (II), m.

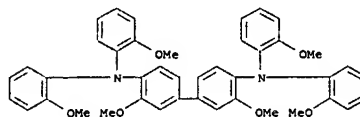
171-4°. (CH₂Cl₂). Similarly prepared were bis(o-methoxyphenyl)(2,5-dimethoxyphenyl)amine, m. 62°, its non-methylated analog m. 172-4°, and tris(2-methoxy-5-methylphenyl)amine, m. 121-4° (b.p. 3.180°). The addition compound, m. 230°, of II with pyridine.HCl was prepared by heating 10 g. II with 15 g. pyridine.HCl at 200° 90 min., and then adding H₂O. For confirmation of structure, an extracoordination phenylsilicon derivative was prepared. To a boiling suspension of II in 25 ml. CCl₄ was added a solution of 2.00 g.

Ph-Si(OAc)₃ in 10 ml. CCl₄ to precipitate the crystallization extracoordination compound m. <300°. A mixture of 48.8 g. 2,2'-dimethoxybenzidine, 200 g. o-iodoanisole, 220 g. powdered K₂CO₃, 150 g. PhNO₂, and 60 g. powdered spongy Cu was purged with N and refluxed 3 hrs., 50 g. more o-iodoanisole added, refluxing continued 2 more hrs., 300 ml. CHCl₃ added to precipitate the product, which on washing with PhMe gave 97 g.

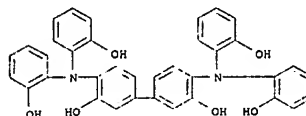
N,N,N',N'-tetrakis(2-methoxyphenyl)-2,2'-dimethoxybenzidine.2PhMe, m. 173-5°; unsolvated amine m. 170-3°. The non-methylated analog, m. 234-7°, and the phenylsilicon extracoordination compound were prepared. These compds. are useful as antioxidants and chelating agents and for the preparation of thermally stable polymers. Ir and N.M.R. spectra are discussed.

IT 7287-76-5P 14662-00-1DP, 3,3'-Biphenyldiol,

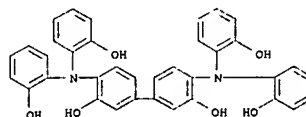
L30 ANSWER 141 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
 4,4'-bis[bis(o-hydroxyphenyl)amino]-, silicon complexes
 14662-00-1P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 7287-76-5 CAPLUS
 CN Benzidine, 3,3'-dimethoxy-N,N',N'-tetrakis(o-methoxyphenyl)- (7CI, 8CI)
 (CA INDEX NAME)



RN 14662-00-1 CAPLUS
 CN 3,3'-Biphenyldiol, 4,4'-bis[bis(o-hydroxyphenyl)amino]- (8CI) (CA INDEX NAME)



RN 14662-00-1 CAPLUS
 CN 3,3'-Biphenyldiol, 4,4'-bis[bis(o-hydroxyphenyl)amino]- (8CI) (CA INDEX NAME)



L30 ANSWER 142 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1569:58464 CAPLUS
 DOCUMENT NUMBER: 70:58464
 TITLE: Extra-coordinated metal complexes and their polymers
 INVENTOR(S): Frye, Cecil L.
 PATENT ASSIGNEE(S): Dow Corning Corp.
 SOURCE: Fr., 11 pp.
 CODEN: FRXXAK
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 1511257		19680126	FR 1967-94591	19670210
DE 1593816			DE	
GB 1182131			GB	

PRIORITY APPLN. INFO.: US 19660211

GI For diagram(s), see printed CA Issue.
 AB Metal complexes were prepared and polymerized for use in coating compns., resins, adhesives, fibers, and elastomers. The complexes containing Si were

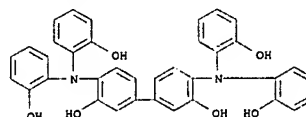
useful in high-temperature resins. Thus, 51 g. 2,2',2''-nitriiotriphenol in 500 cc. PhMe with 109 g. AlCl₃ was refluxed for 90 min. and hydrolyzed with HCl to give 75% of 2,2',2''-nitriiotriphenol (I), m. 171-4°. I (3 g.) was heated at 120-50° with 2.1 g. (iso-PrO)Al to give 85% II (M = Al), m. >300°. The following II were similarly prepared (M, % yield, and m.p. given): TiOPr-iso, 82, >300°; SiPh, 89, >300°; SiMe, 90, 288-90°; SiOAc, -, -, SiCH₂CH₂, 69, 273-5°; SiOMe, -, 280-3°; SiCl, 42.5, 300°; SiOPh, 34, 230-2°. Ph(AcO)Si (2.8 g.) in 15 g. CCl₄ was added to a boiling suspension of 2.9 g. N,N,N',N'-tetrakis(o-hydroxyphenyl)-3,3'-dihydroxybenzidine in 15 g. CCl₄ to give 4 g. III (R = Ph), m. >300°. III (R = OAc) (3.67 g.), similarly prepared, was dissolved in 15 cc. MeCN with 0.2 g. H₂O. The mixture was boiled and diluted with 40

cc. tetrahydrofuran (IV) and the IV layer was decanted and diluted with 200

cc. heptane. A voluminous white precipitate formed giving 85% polymer. p-Phenylenebis[oxyisilylnitriiotris(2,2',2''-oxyphenylene)] internal complex, m. >300°, was also prepared.

IT 14662-00-1DP, 3,3'-Biphenyldiol, 4,4'-bis[bis(o-hydroxyphenyl)amino]-, silicon complexes
 RL: PREP (Preparation)
 (preparation of)
 RN 14662-00-1 CAPLUS
 CN 3,3'-Biphenyldiol, 4,4'-bis[bis(o-hydroxyphenyl)amino]- (8CI) (CA INDEX NAME)

L30 ANSWER 142 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



L30 ANSWER 143 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1966:420513 CAPLUS

DOCUMENT NUMBER: 65:20513

ORIGINAL REFERENCE NO.: 65:3775b-d

TITLE: Pentacoordinate silicon derivatives. III.

2,2',2''-Nitrilotriphenol, a new chelating agent

Frye, C. L.; Vincent, G. A.; Hauschildt, G. L.

Dow Corning Corp., Midland, MI

Journal of the American Chemical Society (1966),

88(12), 2727-30

CODEN: JACSAT; ISSN: 0002-7863

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 65:20513

AB cf. CA 61, 8332h. The copper-catalyzed condensation of 2-substituted iodobenzenes with 2-substituted anilines yielded the novel 2,2',2''-trichloro-, trimethyl-, and trimethoxytriphenylamines. Cleavage of the trimethoxyspecies produced 2,2',2''-nitrilotriphenol which was

shown to be an effective chelating agent, reacting with a variety of silanes (ZSiX₃) to form monomeric pentacoordinate derivs. (I); related aluminum and titanium chelates were also prepared. The use of o-dianisidine in the above condensation yielded N, N, N', N'-tetrakis(2-methoxyphenyl)-3,3'-dimethoxybenzidine; cleavage afforded

N, N, N', N'-tetrakis(2-hydroxyphenyl)-3,3'-dihydroxybenzidine, a hexa-ol from which a dimeric pentacoordinate silicon derivative was prepared

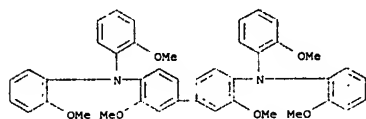
IT 7287-76-5, Benzidine, 3,3'-dimethoxy-N, N, N', N'-tetrakis(o-methoxyphenyl)- 14662-00-1, m, m'-Biphenol, 6,6'-bis[bis(o-hydroxyphenylamino)-

(preparation of)

RN 7287-76-5 CAPLUS

CN Benzidine, 3,3'-dimethoxy-N, N, N', N'-tetrakis(o-methoxyphenyl)- (7CI, 8CI)

(CA INDEX NAME)

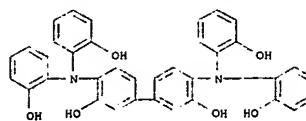


RN 14662-00-1 CAPLUS

CN 3,3'-Biphenyldiol, 4,4'-bis[bis(o-hydroxyphenylamino)- (8CI) (CA INDEX NAME)

L30 ANSWER 143 OF 143 CAPLUS COPYRIGHT 2006 ACS on STN

(Continued)



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